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As a contribution toward understanding intellectual and moral growth in late adolescence in a pluralistic society, a developmental scheme representing an evolution in forms of thought and values was abstracted from students' reports of their experience. The raw data consisted of transcripts of recorded "open" interviews held with volunteer students at Radcliffe and Harvard Colleges at the end of each college year. Two samples were used. Of the 9 "positions" in the scheme's main line of development, the first 3 represent a simple right-wrong structure and their adjustment to diversity, the middle 3 trace the move to a generalized relativistic structure in which students face the issue of identity through personal commitment in a relative world, the last 3 represent stages in the growth of commitment. Included in the scheme are 3 conditions of delay or alienation expressing defection from the main line. Testing the validity of the scheme, judges rated interviews under 4 conditions. Within strict limits, the findings are valuable because they demonstrate the feasibility of assessing the epistemological and axiological development of late adolescents, and it validates a common theme of commitment in human development. (JS)

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## A Validation of a Scheme

William G. Perry, Jr.

April 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education
Bureau of Research

Final Report

Project No. 5-0825
Contract No. SAE-8973

# PATTERNS OF DEVELOPMENT IN THOUGHT AND VALUES OF STUDENTS IN A LIBERAL ARTS COLLEGE

## A Validation of a Scheme

William G. Perry, Jr.
Project Director

Contributors:

Norman A. Sprinthall
John W. Wideman
Frank J. Jones

Bureau of Study Counsel
Harvard University
Cambridge, Massachusetts

April 1968

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U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

## NOTE

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# PREFACE

In this report we describe the validation of a scheme of development which the staff of the Bureau of Study Counsel at Harvard College had derived from students' reports of their experience during their four years in a liberal arts college. The students gave their reports in "open" interviews at the end of each college year. The developmental scheme which we abstracted from these reports traces the evolving forms through which the students appeared to construe the world, with special focus on those forms through which they considered the nature and origin of knowledge, value, and responsibility.

Any abstraction of a common theme from such variegated documents as our students' reports must face the question of being solely the product of the observer's way of making order in chaos. The validity of our abstract scheme of development--that is its "existence" in the students' reports--could be assessed, we felt, through the reliability of agreement of lay judges in positioning the students' reports within the framework of the scheme. This assessment of validity, carried out under varied conditions, was the central work supported by Contract SAE-8973 on which we here report.

In this assessment, our developmental scheme functions as the hypothesis under test. As an hypothesis it cannot be stated as a simple proposition.

It consists of nine stages or "Positions" of structural evolution in a person's outlook toward the world (and of himself in it), one condition of delay in this evolution, and two conditions of alienation from it. Since this hypothesis was elaborated in advance of the tests of validity which are the subject of this report, the reader's convenience will require that we make some departures from the ordinary format of scientific reports, the most important being the provision of a comprehensive introduction.

In the INTRODUCTION which follows the usual SUMMARY, we shall therefore first review the general study from which we derived the developmental scheme, and then proceed to outline the scheme itself, illustrating each stage or "Position" with brief excerpts from the students' reports. We trust that these explanations, though necessarily quite condensed, will provide the reader with the requisite information about the work and thinking of the study prior to the efforts at validation covered by this report itself.*

In CHAPTER I of the report we then address directly the central procedures and findings of the work supported by the present contract (SAE-8973). These procedures and findings are those of validation of the scheme. We considered the validity of the developmental scheme, in respect to the students' reports, as an inference to be drawn from the reliability of agreement among lay judges in independent placing or "rating" of students' reports against the several Positions in the scheme. The judges performed such rating under a variety of conditions, and rated students' reports drawn both from the sample from which the scheme was derived (First Sample) and also from a sample obtained subsequently (Second Sample).

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*For the reader interested in examining the developmental scheme and its derivation in more detail, a full account is available: W. G. Perry, Jr., Forms of Intellectual and Ethical Development in the College Years, Monograph, Bureau of Study Counsel, Harvard University, 1968 (357 pp.).

CHAPTER II then reports on our procedures in sampling and compares the student samples obtained against the population from which they were drawn. We felt that these matters should be open to scrutiny in this report in more detail than could be provided in the INTRODUCTION.

Similarly, CHAPTER III describes the design and performance of the Checklist of Educational Views, an instrument which we used in the selection of the First Sample. In connection with the Second Sample, more highly compressed in academic abilities than the First, the Checklist failed to replicate its previous covariance with academic performance and choice, and we have therefore accorded it a subordinate place in this report. We include a discussion of this instrument, however, for more reasons than that its statistical study was a part of the work under contract. First of all, such a scale might well be functional in less compressed populations. Secondly, researchers concerned with Likert-type scales may be interested in those revisions of format through which we endeavored to resolve not only certain internal technical problems common to such scales but also certain closely related external problems arising from the use of such scales in an educational milieu.

In the CONCLUSION of the report we summarize in the conventional manner the implications we draw from the study. At the end of the report we include as a fold out, the GLOSSARY and CHART OF DEVELOPMENT as used by the judges in their experiments.

# SUMMARY

## Purpose

The intent of the work covered by this report was to assess the validity of a developmental scheme representing an evolution in the forms of thought and of values abstracted from students' reports of their experience in the college years. The raw data consisted of transcripts of recorded interviews held with volunteer students at Harvard and Radcliffe Colleges at the end of each college year in two samples: a First Sample drawn from students in the Class of 1958; a Second Sample drawn from students in the Classes of 1962 and 1963 (see Chapter II). The developmental scheme abstracted from these data presents a main line of nine stages or "Positions" of development and three subsidiary conditions of delay or alienation. In the main line of development the first three Positions trace the students' elaboration of a simple dualistic, right-wrong view of the world in their endeavor to assimilate to it their perception of diversity. The middle three Positions trace the breakdown of this dualistic frame, the substitution of a relativistic frame for all knowledge and value, and the students' intimation of the challenge of personal commitment as a necessity of orientation and identity in a relativistic world. The last three Positions trace the evolution of style in personal commitment. Conditions subsidiary to this main line of development include one of delay, one of escape and one of retreat, interpreted as alternatives to each step of the development (see INTRODUCTION).

## Procedures

We assembled in the fall of 1963 a group of six lay judges--graduate students in the humanities. We gave each of these judges a chart outlining the developmental scheme (see Chart, rear of volume), a sample interview protocol, and a manual of instructions. The manual contained a general, non-technical description of the study, a Glossary of twenty terms to which we ascribed special definitions (see Chart), observations on the task of rating interviews against the chart, and a sample rating form (see Chapter I). After the judges had studied these materials, they met with us for one hour of discussion and then undertook the following tasks of independent ratings:

## Findings: Rating of Four-year Protocols

We presented the judges with complete, unedited transcripts of four-year sequences of the interviews with 20 students, one student's set at a time. Ten of the students were selected at random from the sample of the Class of '58, ten from the sample of the Classes of '62 and '63. Each judge made his ratings independently of the other judges and rated all of the four interviews in a set. After rating each set, the judges met with us to hand in their rating sheets and then to discuss their experience. These discussions helped to sharpen definitions of terms, but we made no attempt to develop a consensus through revision of the independent ratings previously made.

Assuming that our scheme of development had no validity at all, our nul hypothesis read: "The judges will agree in matching interviews with positions on the chart at a level of agreement not exceeding that attributable to chance."

In the test of this hypothesis, the mean reliability of the mean rating for individual interviews for each of the four years was found to be, respectively, +0.966, +0.875, +0.872, and +0.916. The probability of these agreements occurring by chance is less than .0005 (see Table 2, p. 68).

The range of the reliabilities of the mean ratings of the four interviews of individual students was between .815 and .978. The narrowness of this range warrants the conclusion that the judges were able to agree reliably in relating the scheme to the reports of all students in the sample (see p. 72).

## Findings: Rating of Single Interviews

Since the agreement among the judges exceeded our expectations for the rating of such complex materials, we wondered if the judges' knowledge of the student's year in college was affecting their estimate of his degree of development. The possibility was contradicted by the range in the Positions agreed upon for different students in any one college year, but we nonetheless undertook a test by giving the judges single interviews from which we had deleted cues which might identify the student's college year. Though the judges proved unable to guess, beyond the level of chance, which college year a given interview represented, their agreement about the student's position on the chart remained at the level reached with four-year sequences (see pp. 80ff.).

## Findings: Rating of Excerpts

We then examined the kinds of statements in the interviews which had been noted by the judges as contributing most significantly to their rating of interviews. One judge and the chief investigator then excerpted from other interviews 40 statements which seemed similar in character to those which the judges had noted. These excerpts ran from one sentence to a page in length. The rating agreed upon for each excerpt by the one judge and the chief investigator was then entered as the rating of a single judge and the remaining judges were asked to rate each excerpt independently. Agreement remained at its customary level (see pp. 83 ff.).

This finding confirmed our notions about some of the evidence through which the judges developed their ratings in complete interviews. However, its immediate usefulness was in validating the use of excerpts in communicating to others the nature of the developmental scheme itself.

## Findings: Rating of Condensed Four-Year Reports

In another test of means of communication, we examined the validity of short, readable portraits produced by drastic condensation of full-length transcripts.

To test the integrity of such condensed reports, three judges rated the complete form and three rated the condensed form of four students' four-year reports. The results indicated that the condensed version gave a faithful portrayal for the purposes of rating, with the exception of the tendency of the edited form to exaggerate the simplicity of the impression conveyed of a student's outlook in his freshman year (see pp. 86 ff.). These results encouraged our hope that such condensed, readable reports would make useful public documents--a hope with which we had begun our study ten years before.

## Limits of the Study

These experimental validations apply only within the most stringent limits of our study. The major limits are dictated by the following conditions:

1) The subjects were student volunteers in a single college during the years 1954 to 1963.

2) The investigators abstracted the developmental scheme from oral reports given by the students during annual interviews with the investigators themselves.*

3) In testing the validity of the scheme the judges performed operations in relation to the data from which the scheme was derived.

## Conclusions

Within its own strictest limits the study demonstrates the possibility of assessing, in developmental terms, abstract structural aspects of knowing and valuing in intelligent late-adolescents. Substantively the study confirms the validity of one scheme of such development, showing it to be reliably evident as a theme common to all students' reports sampled. The developments traced in the scheme are of construal rather than of content, of contextual configuration rather than of linear increment, and involve what might be called the growth of hierarchies. Of special interest in respect to the advanced levels of the scheme is the assessment of the evolution of personal commitments, again in terms of structuring activity and style rather than simply of content.

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*The question of the degree of interviewer influence may be partially answered by the fact that we developed the first outlines of our scheme _after_ completing our interviews of the sample from the Class of '58 and _before_ interviewing the sample from the Classes of '62-'63. No difference appeared in the reliability of the rating of interviews from the two samples. (For a discussion of interviewing procedures and interviewer influences see Perry, _op_. _cit_.)

The findings confirm also the feasibility of illustrating such developments, at the level of the data itself, through excerpts and highly condensed student reports.

## INTRODUCTION

We summarize here the derivation and nature of the developmental scheme which is tested by the work covered by the report proper. A full account is available in W. G. Perry, Forms of Intellectual and Ethical Development in the College Years.* We refer the reader to that full account for such matters as the historical setting of the study, its philosophical assumptions, its problems of conceptualization, its psychological derivations, its own assumptions about values, its techniques of data gathering, and its relation to the work of the researchers. In this summary, all such matters--including notation of references--will be kept at a minimum in order to present a concise outline of substance fundamental to this report.

### 1. Origins of the Developmental Scheme

In 1954 the staff of the Bureau of Study Counsel at Harvard College undertook to explore the experience of the generality of undergraduates over and beyond those who applied to us for counsel. Our purpose was purely descriptive: to sample the great variety of experience we felt to be represented in the student body. Our work as counselors had, however, given us a particular interest in one aspect of this variety: the great range in the ways in which different students appeared to address the diversity and relativism of thought and values that characterized their liberal education in the setting of a pluralistic university. Our initial intent was simply to collect the accounts of twenty or thirty quite different students as they might tell us about their experience in open interviews at the end of each of their four years in college.

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*Bureau of Study Counsel, Harvard University, Copyright, President and Fellows of Harvard College, 1968.

## Procedure

We started out, then, to illustrate the variety in students' response to the impact of intellectual and moral relativism. Wishing to secure this variety in a small sample of students, we felt it best to obtain the largest possible range between those freshmen bringing with them a strong preference for dualistic, right-wrong thinking and those bringing with them a strong affinity for more qualified, relativistic and contingent thinking. We considered such differences as manifestation of differences in "personality" (in keeping with much psychological thinking of the time). It had not yet occurred to us that it might be more fruitful, at least for our purpose, to consider such differences primarily as expressions of stages in the very experience we were setting out to explore.

Starting, then, from the research on the authoritarian personality (Adorno and Brunswik, *et al*., 1950) and G. G. Stern's work at Chicago using the *Inventory of Beliefs* (Stern, 1953), we devised a measure which we called *A Checklist of Educational Views* (CLEV). In preliminary trials in 1953 to 1954, the measure promised to identify students along the dimension we desired (see Chapter III).

We administered CLEV to a random sample of 313 freshmen in the fall of 1954 and to the same students in the spring of 1955. On the basis of their scores on the measure, we then sent invitations to 55 students, 31 of whom volunteered to tell us in interview about their college experience. Among these freshmen were some who had scored at the extreme of dualistic thinking, some at the extreme of contingent thinking, some from the mean, and some who had changed their scores markedly from fall to spring (see Chapter II).

Our interviews with these students in late May and June of each of their college years resulted in 98 tape-recorded interviews, including 17 complete four-year records. We conducted the interviews themselves in as open-ended a way as possible so as to avoid dictating the structure of a student's thought by the structure of our questions. That is, we asked only for what seemed salient in the student's own experience, beginning interviews with an invitation of the form: "Would you like to say what has stood out for you during the year?" After the student's general statements, we then asked: "As you speak of that, do any particular instances come to mind?" (Cf. Merton, Fiske and Kendall, 1952.)

Perhaps as a consequence of these procedures, the variety in the form and content of the students' reports appeared at first to exceed our expectations and to exclude any possibility of orderly comparison. However, we gradually came to feel that we could detect behind the individuality of the reports a common sequence of challenges to which each student addressed himself in his own particular way. For most of the students, their address to these challenges as they experienced them in their academic work, in the social life of the college, and in their extra-curricular activities or employment, seemed to represent a coherent development in the forms in which they functioned intellectually, in the forms in which they experienced values, and the forms in which they construed their world. The reports of those few students who did not evidence this development seemed meaningful as descriptions of deflection from some challenge in the sequence. In this sequence, tendencies toward dualistic thinking and tendencies toward contingent thinking now appeared less as the personal styles we had originally conceived them to be and more saliently as characteristics of stages in the developmental process itself.*

At this point we radically extended the purpose of our study and committed ourselves to experimental as well as descriptive procedures. We undertook 1) to abstract the sequence we had detected in the students' reports to form an articulated developmental scheme, 2) to obtain a larger sample of students' reports of their experience over their four years of college, 3) to prepare the developmental scheme for a test of validity.

1) We first spelled out the development we saw in the students' reports in first-person phenomenological terms--that is, in the words that might be used by an imaginary "modal" student moving along the center line of that generalized sequence of challenges and

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*The developmental aspect of these tendencies was observed by other researchers of the period (Loevinger, 1959), (Sanford, 1956, 1962), (Harvey, _et al_., 1961).

resolutions which we thought we saw behind all the variegated reports of our individual volunteers. We then described in abstract terms, from the outside, the structure of each of the major stages (i.e., the more enduring or stable forms in which the students construed the world). Concomitantly, we attempted to articulate those transitional steps (i.e., the more conflicted and unstable forms) which appeared to lead from stage to stage, transforming one structure to the next. With the main theme roughed out, we then traced around it the major variations which our data suggested to us, or which our scheme suggested through its own logic. Among these variations were included those deflections and regressions which we had interpreted as "opting out" or alienation from the course of maturation presumed by the scheme.

2) To obtain a second and enlarged sample, we sent invitations to 50 freshmen from the Class of '62 and 104 freshmen from the Class of '63. These freshmen were drawn from a random third of their classmates who had filled out a revised form of the Checklist of Educational Views in fall and spring. In this instance, however, we ignored their scores on this instrument and selected those we would invite through a random procedure. A total of 109 students responded, resulting later, in June of 1963, in 366 interviews, including 67 complete four-year reports (see Chapter II).

3) Concurrently with sending out invitations to the Second Sample, we returned once again to our developmental scheme in order to reduce its form and terminology to a kind of scale which would be amenable to the tests of validation which are the subject of this report. These efforts resulted in a Glossary of twenty terms to which we ascribed special meanings, and

a Chart of Development expressing the scheme through a layout on a single sheet. The reader will find this Glossary and Chart at the end of this volume and may wish to fold the sheet out for reference in connection with the following resumé of the scheme.

## 2. Outline of the Developmental Scheme

### General

The process traced by the scheme may be considered roughly analogous to that which Piaget calls "de-centering" at each of his several "periods" of development (Flavell, 1963). In parallel with Piaget's theories also, this "de-centering" will be considered as mediated by "assimilations" and "accommodations" in those structures (roughly Piaget's "schema") through which the person finds meaning in his experiences. Here this process of developing an "equilibrium" between the person and the environment would be considered as occurring at a level or "period" as yet unexplored in Piaget's publications--a period of philosophizing in which the capacity for meta-thinking emerges. This capacity provides for detachment, enabling the person to become "his own Piaget" (Bruner, 1959), and involves the person in radical redefinitions of responsibility.

Our scheme departs in major ways from Piagetian forms, but the analogy will serve for initial orientation and will explain in particular why our scheme begins, in Positions 1 and 2, with a recapitulation of highly simplistic and egocentric forms at a philosophical level.*

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*The most interesting parallel to our scheme lies in the work of Harvey, Hunt and Schroeder (1961) and D. E. Hunt

## Overview of the Scheme

The Chart which the reader may open out from the flyleaf of this volume outlines the nine Positions of development of our scheme, and below these the three conditions of deflection: Temporizing, Escape and Retreat.

Most broadly, the development may be conceived in two major parts centering on Position 5. The outlook of Position 5 is that in which a person first perceives man's knowledge and values as generally relative, contingent and contextual. The sequence of structures preceding this Position describes a person's development from a dualistic absolutism and toward this acceptance of generalized relativism. The sequence following this Position describes a person's subsequent development in orienting himself in a relativistic world through the activity of personal Commitment.

In a somewhat more detailed way of conceiving the scheme, it may be seen in three parts each consisting of three Positions. In Positions 1, 2 and 3, a person modifies an absolutistic right-wrong outlook to make room, in some minimal way, for that simple atomistic pluralism we have called Multiplicity. In Positions 4, 5 and 6 a person accords the diversity of human outlook its full problematic stature, next perceives in the simple pluralism of Multiplicity the patternings of contextual Relativism, and then comes to foresee the necessity of personal Commitment in a relativistic world. Positions 7, 8 and 9 then trace the development

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(in Harvey, 1966), work of which we were quite ignorant while completing our formulations in 1960. Terminology differs but the similarities of conceptualization are confirmatory.

of Commitments in the person's actual experience.

The Positions of deflection (Temporizing, Escape and Retreat) offer alternatives at critical points in the development. The scheme assumes that a person may have recourse to them whenever he feels unprepared, resentful, alienated or overwhelmed to a degree which makes his urge to conserve dominant over his urge to progress. In the first three Positions in the development, the challenge is presented by the impact of Multiplicity, in the middle three Positions by the instability of self in a diffuse Relativism, and in the final Positions by the responsibilities of Commitment.*

## Layout of the Chart

The main line of development extends from left to right as Position 1, Position 2, through Position 9. Above these headings, overlapping bands group these Positions by the most generalized characteristics of their structure: Simple Dualism, Complex Dualism, Relativism and Commitment in Relativism. Each Position is then given its own descriptive title directly below its number. This is followed by a brief outline and diagrammatic representation of the major structure of the Position and its alternates or substructures. The alternatives and substructures of a given Position express the major variations of the central theme as we found them in the students' reports. Or to use another metaphor, various linkages of these options offer alternative routes and by-ways through which the development can be achieved.

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*The Glossary of the special terms used, together with their codes, will be found on the page at the end of this volume immediately preceding the Chart. These terms will appear throughout the remainder of this summary. They will be identified in most instances by the upper case initial letter, e.g., Multiplicity, Relativism, Authority, Adherence, Opposition, etc. When a distinction depends on the use of lower-case vs. upper-case initial letters, e.g., authority vs. Authority, the point will be made explicit in context.

Positions departing from the main line of development are represented in parallel to the development, below it on the chart: Temporizing, Escape, and Retreat. The structures of these special categories may have the form of any of the main Positions directly above, with some addition, subtraction, or alteration which functions as a delay, detachment, or rejection of the movement expressed in the main line.

As we expected, no freshman in the study was found to express the structure of Position 1 at the time of his interview in June. A few did attempt to describe themselves as having arrived at college in just such a frame of mind, but none could have remained in it and survived the year. Position 1 is therefore an extrapolation generated by the logic of the scheme. At the end of the year, freshmen normatively expressed the outlooks of Positions 3, 4, or 5. Most seniors were found to function in Positions 6, 7, and 8. The Position at which a student was rated as a freshman was not predictive of the Position at which he would be rated in his senior year.

Position 9 expresses a maturity of outlook and function beyond the level we expected the experience of a college senior to make possible for him, though he might have intimations of it. Like Position 1, it is an extrapolation rounding out the limits of the scheme. On rare occasions, however, one or another of our judges was so impressed with some senior's report that he did rate the student at Position 9. In discussion, the judge would reveal that the rating was a kind of tribute made in humble, and even somewhat envious, respect.

The tests of the scheme's validity covered by the present study concern the reliability of the judges' agreement solely as to the number of the Position (and special category of Temporizing, Escape and Retreat) most expressive of a given student's report. The tests do not extend to the judges' agreement about the substructures and stylistic distinctions coded on the Chart. In addition to rating each report as to numerical Position (and special category) the judges did note on their rating forms the coding of the substructure and style they felt to be most evident. Inspection of these ratings suggests to the eye that the judges were in reliable agreement about these finer distinctions, but the demonstration of this reliability required a number of ratings and a complexity of analysis beyond the limits of the present study.

In the summary of the scheme that follows, therefore, we shall describe the abstract outlines of each Position and its major substructures rather baldly, with a minimum attention to particular variations. This generalized description will serve the reader for his purposes in this report, but it will leave each Position rather static and reduce the sense of the scheme's experiential flow. For a livelier portrayal of the students' experience we again refer the reader to the full account (Perry, op. cit.) where the richness of the data is explored for its own sake.

## Position 1, Basic Duality

The outlook of Position 1 is one in which the world of knowledge, conduct and values is divided as the small child divides his world between the family and the vague inchoate outside. From this Position, a person construes all issues of truth and morality in the terms of a sweeping and unconsidered differentiation between in-group vs. out-group. This division is between the familiar world of Authority-right-we, as against the alien world of illegitimate-wrong-others. In the familiar world, morality and personal responsibility consist of simple obedience. Even "learning to be independent," as Authority asks one to, consists of learning self-controlled obedience. In the educational aspect of this world, morality consists of committing to memory, through hard work, an array of discrete items--correct responses, answers, and procedures, as assigned by Authority. This set of assumptions may indeed be the simplest which a person in our culture may hold on epistemological and axiological matters and still be said to make any assumptions at all.

Only three or four of our students seem to have come to college while still viewing the world from this Position's epistemological innocence. Furthermore its assumptions are so incompatible with the culture of a pluralistic university that none of these few could have maintained his innocence and survived to speak to us directly from it in the Spring of his freshman year. Within the confines of our data, therefore, our portrayal of this Position involves inferences beyond those required for structures from which our students spoke directly. The inferences are derived in two ways: 1) by examination of students' efforts to describe the outlook in retrospect, 2) by considering the outlook of students in slightly more advanced positions with the question: What would the world seem like to these students without what they describe as new discoveries?

Our construction from these inferences, however, finds confirmation outside of these data. In our counseling practice we have consulted with entering freshmen who have spoken directly from this structure in sharing with us their efforts to make sense of their new milieu. The outlook is also quite familiar in school settings where it sometimes receives explicit or implicit institutional support. Indeed, there is so little that is novel about it that it finds an almost full expression in the Book of Genesis. A freshman looks back:

> S. When I went to my first lecture, what the man said was just like God's word, you know. I believed everything he said, because he was a professor, and he's a Harvard professor, and this was, this was a respected position. And-ah, ah, people said, "Well, so what?" . . . and I began to-ah, realize.

A salient characteristic of this structure, and the source of its innocence, is its lack of any alternative or vantage point from which the person may observe it. Detachment is therefore impossible, especially regarding one's own thought. A person therefore cannot explicitly describe such an outlook while embedded in it. This quality is evident in the difficulty our students experienced in trying to describe the state even in retrospect. Most students who made the effort could shape only such brief summaries as, "Well, then I just wouldn't have thought at all," or "These questions [of different points of view] just weren't there to worry over, sort of; I mean, I guess everything seemed too settled. But I wouldn't have even thought of saying that."

The following excerpt is from a senior's effort at retrospect:

> S. I certainly couldn't - before that I was, you know, I wouldn't ask. /Yeah/ I wouldn't have - I wouldn't be able to talk on this subject at all. I mean, the-these four years have really sort of set this all up, because I never read any - well, I've practically never read any philosophies or theologies before, so that what I have is just - well, was there you know.

The extraordinary stability of this structure--expressed by the student's remark "I wouldn't ask"--results from the consignment of all that might contradict Authority to the outer-darkness of the illegitimate-wrong-other. This dualism leaves the world of Authority free of conflict. All differences from Authority's word, being lumped together with error and evil, have no potential for legitimacy. As illegitimate, they complement and confirm the rightness of Authority instead of calling it into question:

> S. Well I come, I came here from a small town. Midwest, where, well, ah, everyone believed the same things. Everyone's Methodist and everyone's Republican. So, ah, there just wasn't any . . . well that's not quite true . . . there are some Catholics, two families, and I guess they, I heard they were Democrats, but they weren't really, didn't seem to be in town really, I guess. They live over the railroad there and they go to church in the next town.

This structuring of the world is clearly the prototype of the structure of bigotry and intolerance; but in its naive origins, as the above excerpt makes clear, it may simply be the derivative of a homogeneous cultural setting. A person with this kind of outlook, then, cannot be termed intolerant or bigoted until he is confronted with the challenge of change, as he will be in the later Positions.

Epistemologically, the outlook assumes that knowledge consists of a set of right answers known by the Authorities and existing in the Absolute. There is assumed to be a right answer for everything, and all answers are either right or wrong. There are no better or worse answers. In an educational setting, therefore, the comparative merit of students is presumed to be determined by the sum of their right answers minus the sum of their wrong answers, as on spelling tests. From this and the next two Positions, therefore, instructors' efforts to get students to think relativistically will be consistently misperceived, as: "He wants me to put in more generalizations," or, conversely, "He wants me to put in more facts."

Knowledge and value are closely intertwined. A right answer is valid only if it has been obtained by hard work, and Authority is presumed to know whether the work has been done or not. Against this background the perception that some students receive high grades for little work will precipitate a moral crisis. Acts, like propositions, are also either right or wrong rather than better or worse, and virtue is a quantitative accretion of good deeds balanced by not too many bad deeds, as in "how good I've been this week." Truly qualitative distinctions of better and worse would involve contingent judgments by the observer that are incompatible with the structure. In the same sense there can be nothing truly neutral, only things which are "all right," meaning approved or condoned by

Authority and therefore "not wrong." A category for the intrinsically neutral, which opens a domain into which Authority has "no right" to intrude, is a later development (see Multiplicity in Position 4). Here at the outset "all right" means "permitted" and though the category opens some area of freedom and diversity, as for play, it remains strictly within Authority's domain. Obedience, therefore, solves all moral problems.

> S. Well the only thing I could say to a prospective student is just say, "If you come here and do everything you're supposed to do, you'll be all right," that's just about all.

In our records the first loosening and accommodation in this structure will arise from the pressing need to assimilate diversity in the peer group, especially in conversations in the dormitory. This is seconded by a more gradual realization of pluralism in the ranks of society itself. This latter accommodation is facilitated, however, by a differentiation that can be made within the bounds of the structure itself. In its earliest form, no distinction may be made between Authority and Knowledge-in-the-Absolute: "the truth" and "what they want" may be synonymous. However, the very fact that Authorities themselves constantly refer to truth as outside themselves and as binding even upon them--this fact tends to separate out the Absolute from Authority and to give it an existence of its own in a kind of Platonic world of ideas. The system then becomes vulnerable from within, as was the Garden of Eden. The Tree of Knowledge sooner or later may be approached directly without the mediation of Authority. Until this radical approach is made, however, the structure places Authority, especially in educational settings, as the mediator between the student and the Absolute. And if the task of Authority is to mete out knowledge in manageable and digestible portions, this makes instructors vulnerable to judgment as good or bad mediators between the students and the Absolute.

In this distinction, Authorities--as mediators--can even be indulged somewhat by being granted their peculiar interest in "theories" and "interpretations" but only so far as these do not seriously obscure the solid truths it is their duty to communicate:

> S. A certain amount of theory is good but it should not be dominant in a course. I mean theory might be convenient for them, but it's nonetheless--the facts are what's there. And I think that should be, that should be the main thing.

An instructor can be perceived as failing of adequate mediation on two grounds. The older and admittedly "experienced" instructors are usually perceived as "knowing their subject" but may be criticized for failing of that "teaching method" which outlines procedure:

> S. He must have taught it for the past thirty years. He uses books, but they were, they were very bad. And the teacher himself didn't eluci-, didn't help us much at all. He came in and he would do problems on the board without thinking of whether the, it was ever getting through to the class. And it usually wasn't.

The young teaching assistant, however, is liable to perception as an outright fraud, a kind of older-brother pretender who arrogates the perquisites of Authority without its justification in knowledge:

> S. I don't know how many guys feel that way, but I, I (laughs) feel, I think a lot of the students do. Just-ah, well, they don't

> have much respect for these men. No kidding, they just don't. They really, they really think, they think sometimes that they just are, the worse things in the world. They ah, and, and I think some of them are not as, half as smart as some of the students there. The students can talk circles around these guys. And it doesn't really do your, do them any good. For one thing, Professor Black who taught us [previously] . . . Christmas! you couldn't lose him on one point. Man, he wouldn't, you couldn't, you couldn't *find* a question *he* couldn't answer. I doubt. And you respected him for it. Not that you're trying to trick the, the section man, but you, when you come up with any kind of a reasonable question, *he* can answer it for you, and he can answer it *well*. Whereas the section men dwiddle around and, and talk a lot of nonsense.

One might suppose that this distinction between good and bad Authority might make possible the direct perception of pluralism in Authority's ranks. In the records expressive of the early Positions in our scheme, however, the assumption that there is one right answer to all questions seems too firm to allow of this assimilation. A revered professor who actually teaches a pluralistic or relativistic address to his own subject is initially misunderstood; he is perceived as "teaching us to think independently," meaning "to find the right answer on our own" (see Positions 2 and 3).

In our records, the confrontation with pluralism occurs most powerfully in the dormitory. Here diversity emerges within the in-group with a starkness unassimilable to the assumptions of Position 1 by any rationalizations whatever. The accommodations of structure forced by this confrontation make possible a more rapid and clear perception of pluralism in the curriculum:

> S. So in my dorm I, we've been-ah, a number of discussions, where, there'll be, well, there's quite a variety in our dorm, Catholic, Protestant, and the rest of them, and a Chinese boy whose parents-ah follow the teachings of Confucianism. He isn't, but his folks are. . . . And a couple of guys are complete-ah agnostics, agnostics. Of course, some people are quite disturbing, they say they're atheists. But they don't go very far, they say they're atheists, but they're not. And then there are, one fellow, who is a deist. And by discussing it-ah, it's the, the sort of thing that, that really-ah awakens you to the fact that-ah . . . (words lost)

Pluralism seems to be perceived next in the readings assigned by Authority in the curriculum.

> S. Well the one thing, I would say, that strikes me most, ahh, of course just, just one point-ah, there are many other ones, but I would say that course-ah Philosophy lb takes up, we've been-ah discussing the modern philosophers, introduction to modern philosophy, it includes-ah the reading of Descartes, Spinoza--Descartes, Spinoza, Hume, Kant and James, and so there, you see it right there, it's the same, same thing, it's, it's a very wide range.

In short it appears that it is the extension of potential legitimacy to "otherness" that brings the implicit background of Position 1 into foreground where transformations in its structure may occur. Otherness in the implicit, unquestioned structure had been consigned to an unconsidered limbo--on the other side of the tracks. Pluralism forcefully demands legitimacy in the peer group or is more gradually accorded its legitimacy in the curriculum offered by Authority itself. Its assimilation requires accommodations in the most fundamental assumptions of outlook. These changes can be rapid or extended through time, but our records suggest that there are a limited number of paths through which these changes can lead coherently from Position 1 to a relativistic view of man's predicament. The linkages among the variant structures within Positions 2, 3, and 4 reveal these sequences. The progression is from thinking to meta-thinking, from man as knower to man as critic of his own thought.

## Position 2, Multiplicity Pre-Legitimate

Looking outward through the structural assumptions of Position 1, a student will first perceive such matters as contingencies of thought, contextual considerations, diverse interpretations and relative values as an undifferentiated, unpatterned mass of discrete impedimenta which seem to becloud what should be a direct view of the Right Answers. Where this complexity is presented by Authority itself, which is expected to elucidate the Right Answers, the anomaly may be assimilated to the assumptions of Position 1 in either of two ways. Both of these assimilations reduce complexity to the status of a mere artifact without real epistemological significance. No accommodations need therefore be made in the basic assumptions about the nature of the Truth which is presumed to be "really there" behind the complexity.

The choice between these two assimilations which form the alternative substructures of Position 2 appears to be dictated by the student's temperamental and developmental tendency toward either compliance (Adherence) or revolt (Opposition) in relation to Authority. In the Oppositional alternative, the student perceives the Authorities in question as bad and as failing of their mediational role:

> S. One comes to Harvard expecting all sorts of great things, and then one hits these, these Gen. Ed. courses which are extremely, ah, I don't know, they're just stupid, most of them. I've taken two, I'm taking Nat. Sci. and Hum. both of which I found, well, it's an extremely confused sort of affair, nobody seems to know anything. . . . [about Nat. Sci.] It's supposed to teach you to-ah, reason better. That seems to be the, the excuse that natural science people give for these courses, they're supposed to teach you to arrive at more logical conclusions and look at things in a more scientific manner. Actually what you get out of that course is you, you get an idea that science is a terrifically confused thing in which nobody knows what's coming off anyway.

In contrast the more trusting Adherent student sees Authority as presenting complexities for his own good--to help him learn to find the Right Answer on his own:

> S. I found that you've got to find out for yourself. You get to a point where you, ah, see this guy go through this rigamarole and everything and you've got to find out for yourself what he's talking about and think it out for yourself. Then try to get to think on your own. And that's something I never had to do, think things out by myself, I mean. In high school two and two was four; there's nothing to think out there. In here they try to make your mind work, and I didn't realize that last year until the end of the year.
>
> I. You kept looking for the answer and they wouldn't give it to you . . .?
>
> S. Yeah, it wasn't in the book. And that's what confused me a lot. Now I know it isn't in the book for a purpose. We're supposed to think about it and come up with the answer!

These two perceptions are equivalent in providing no legitimate place, in their common epistemological assumptions, for human uncertainty. Truth is not perceived as inherently problematical. Even that procedure which the students will later refer to as "interpretation" is here perceived either as needless confusion or a mere exercise. It is in this sense that we saw them as developmentally equivalent structures in our scheme.*

### Position 3, Multiplicity Subordinate

A Sophomore-to-be is speaking of his preference for physics:

> S. I'd feel (laughs) rather insecure thinking about these philosophical things all the time and not coming up with any definite answers. And definite answers are, well, they, they're sort of my foundation point. In physics you get definite answers to a point. Beyond that point you know there _are_ definite answers, but you can't reach them.

In the concession "but you can't reach them," this student makes room in his epistemology for a legitimate human uncertainty. It is a grudging concession and does not affect the nature of truth itself (only man's relation to it!), but the accommodation has loosened the tie between Authority and the Absolute. Uncertainty is now unavoidable, even in physics. As a consequence, a severe procedural problem becomes unavoidable too. How, in an educational institution where the student's every answer is evaluated, are answers judged? Where even Authority doesn't know the answer yet, is not any answer as good as another?

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*In the sense of personal individuation, however, the Oppositional alternative is more advanced: the student taking this stand has dared to set himself apart from Authority in a recapitulation, at a philosophical level, of primary adolescent revolt. Our records reveal, however, a paradox in the consequences of this forward step. In the early Positions of the scheme, a student taking a firm stand in Opposition to Authority rejects the tools of relativistic thinking which his instructors in a modern liberal university are endeavoring to teach. He then has no recourse, but to entrench himself in all-or-none dualistic thought. Ironically, then, the student who is more compliant in these earlier Positions acquires more rapidly the tools of rational and productive dissent. This irony may be shown to result from the revolution in the university's own epistemological assumptions in the past fifty years (see Perry, _op. cit._) and its consequences will be remarked on below under Retreat and in the Conclusion of this report.

So far Authority has been perceived as grading on amount of right-ness, achieved by honest hard work, and as adding an occasional bonus for neatness and "good expression." But in the uncertainty of a legitimized Multiplicity, coupled with a freedom that leaves "amount" of work "up to you" and Authority ignorant of how much you do, rightness and hard work vanish as standards. Nothing seems to be left but "good expression":

> S. If I present it in the right manner it is well received. Or it is received . . . I don't know, I still haven't exactly caught onto what, what they want.

Authority's maintenance of the old morality of reward for hard work is called into serious question:

> S. A lot of people noticed this throughout the year, that the mark isn't proportional to the work. 'Cause on a previous paper I'd done a lot of work and gotten the same mark, and on this one I wasn't expecting it. . . . I just know that you can't, ah, expect your mark in proportion to the amount of work you put in. . . . In prep school it was more of a, more, the relationship was more personal and the teacher could tell whether you were working hard, and he would give you breaks if he knew you were working.

> It wasn't grading a student on his aptitude, it was grading somewhat on the amount of work he put in.

This amount of uncertainty can again raise Opposition:

> S. This place is all full of bull. They don't want anything really honest from you. If you turn in something, a speech that's well written whether it's got one single fact in it or not is beside the point. That's sort of annoying at times, too. You can put things over on people around here; you're almost given to try somehow to sit down and write a paper in an hour, just because you know that whatever it is isn't going to make any difference to anybody.

And temptation is set in the way:

> S. It looks to me like it's (laughs) kind of not very good, you know? I mean you can't help but take advantage of these things.

A legitimate though still subordinate place has been accorded for diversity of opinion in Authority's domain. The anomaly of Authority's continuing to grade one's opinions, even in areas of legitimate uncertainty as to the Right Answer, is not satisfactorily resolved by the notion of "good expression." The tension of the quest to find out "what They want" is high.

## Position 4, Multiplicity Correlate or Relativism Subordinate

The students' accounts reveal that in finding some resolution of the question left unanswered by Position 3 they again split into two groups, depending on their tendency toward Opposition or Adherence.

The Oppositional students seize on the notion of legitimate uncertainty as a means of raising

Multiplicity to the status of a realm of its own, correlate with and over against the world of Authority in which Right Answers are known. In the new realm, freedom is, or should be, complete: "Everyone has a right to his own opinion," and "They have no right to say we're wrong":

> S. I mean if you read them [critics], that's the great thing about a book like Moby Dick. [Laughs] Nobody understands it!

This new structure, consisting of two domains, represents an accommodation of earlier structures which preserves their fundamental dualistic nature. Instead of the simple dualism of the right-wrong world of Authority, we now have the complex or dual-dualism of a world in which the Authority's dual right-wrong world is one element and Multiplicity is the other. The categorization of all epistemological and moral propositions in accordance with this structure remains atomistic and all-or-none.

The student has thus succeeded in preserving a *categorical dualism in his world and at the same time* has carved out for himself a domain promising absolute freedom. Here again, then, it is difficult to see how the Oppositional student can assimilate from this structure a perception of contextual relativistic thought. However the structure does derive strength from the daring behind its creation, and it is a strength that can serve the student well in the future. The establishment of a domain separate and equal to that of Authority, in which the self takes a stand in chaos, will provide (once contextual thought is discovered to provide some order) a platform from which certain Authorities, and knowledge itself, may be viewed with entirely new eyes.

By whatever means it is discovered, the bridge to the new world of comparative thought will lie in the distinction between an opinion (however well "expressed") and a supported opinion:

> S. Well--it's an opinion, but it's got to be an educated opinion. Have something behind it, not just a hearsay opinion. I mean, you can't form an opinion unless you have some knowledge behind it, I suppose.

In this transitional statement it is not yet clear that a better opinion would not still be one which simply has "more" knowledge behind it in the purely quantitative sense; and yet an "educated" opinion is surely something else than a right answer or a wrong answer or any opinion. The step to truly qualitative comparison is now a short one.

There is, however, another pathway from Position 3 to the vision of general Relativism in Position 5. This path, which the majority of our students followed, does not involve setting Multiplicity, as a world of its own, over against the world of Authority. Rather, it allows the discovery of Relativism in Multiplicity to occur in the context of Authority's world where Multiplicity is still a subordinate to Authority as something "They want us to work on" (Relativism Subordinate):

> S. Another thing I've noticed about this more concrete and complex approach--you can get away without . . . trying to think about what they want--ah, think about things the way they want you to think about them. But if you try to use the approach the course outlines, then you find yourself thinking in complex terms: weighing more than one factor in trying to develop your own opinion. Somehow, for me, just doing that has become extended beyond the courses. . . . Somehow what I think about

> things now seems to be more-ah, it's hard to say right or wrong--but it seems (pause) more sensible.

Here the correction from "what they want" to "the way they want you to think" signals the discovery of the articulation of the "concrete" with the "complex" in "weighing" in Multiplicity--a mode of thought which is the structural foundation of Relativism. The weighing of "more than one factor," or, as this student later explained, "more than one approach to a problem," forces a comparison of patterns of thought, that is, a thinking about thinking. For most students, as for this student, the event seems to be conscious and explicit; that is, the initial discovery of meta-thought occurs vividly in foreground, as figure, against the background of previous ways of thinking, and usually as an item in the context of "what They want."

Now the capacity to compare different approaches to a problem in "developing one's own opinion" is presumably the ordinary meaning of "independent thought." The paradox for liberal education lies in the fact that so many of our students learned to think this way because it was "the way They want you to think," that is, out of a desire to conform. The challenge of a more genuine independence then confronted these students in the revolutionary perception of the general relativism of all knowledge, including the knowledge possessed by Authority itself (Position 5).

### Position 5, Relativism Correlate, Competing, or Diffuse

Up to this point the students have been able to assimilate the new, in one way or another, to the fundamental dualistic structure with which they began. The new, to the extent that it has been anomalous or contradictory, has naturally forced them to make certain accommodations in the structure, but these have been achieved either by the elaboration of dualism into a dual dualism or by the addition of a new subcategory of "critical thinking" to the general category of "what Authority wants."

The students now achieve a revolution in their view of the world by making a transposition in the hierarchy or forms of Position 4. They promote Relativism from its status as a special case (or subordinate part within a broad dualistic context) to the status of context, and within this new context they consign dualism to the subordinate status of a special case.

A student makes a transitional statement in which the revolution is all but complete; in context his word "complexity" refers to a relativistic approach to knowledge:

> S. I don't know if complexity itself is always necessary. I'm not sure. But if complexity is not necessary, at least you have to find that it is not necessary before you can decide, "Well, this particular problem needs only the simple approach."

Here it is the "simple" right-or-wrong that has become a special case. The student now finds it safer to assume complexity as a general state and then to discover simplicity if it happens to be there. The statement would represent the fully-developed structure of Position 5 except for the fact that the "simple," when it occurs, is still assumed to be simple and not itself a derivative of complexity (e.g., 2 + 2 does equal 4; the simplicity of the proposition is not perceived as a derivative within a relativistic theory of sets).

The notion that some or most knowledge may be relativistic while some remains absolute and dualistic is the structuring we termed Relativism Correlate. In other records, where the student wavered between absolutistic and relativistic assumptions without appearing to notice that he held two incompatible generalized frames, we called the structure Relativism Competing. Both of these structures may be considered partly transitional. The complete revolution, expressed in the assumption of general Relativism in all knowledge, we named Relativism Diffuse.

The nature of this revolution of outlook--through a transposition between the structure of part and the structure of context--has been revealed as a major strategy in the development of scientific theory (Kuhn 1962). As a strategy of personal growth it would seem to deserve a prominent place not only in theory of cognitive development but also in consideration of emotional maturation and the formation of identity.

The vision of generalized Relativism, and of the procedural skills of contextual analysis and comparison appropriate to it, provides students with a new sense of having "caught on" in their studies and of possessing a new way of looking at life:

> S. It's a method that you're dealing with, not, not a substance. It's a method, a purpose-ah, "procedure" would be the best word I should imagine, that you're, that you're looking for. And once you've developed this procedure in one field, I think the important part is to be able to transfer it to another field, and the example that I brought up about working with this, this crew of men. It's probably-ah, the most outstanding at least one of the achievements that I feel that I've been able to make as far as transferring my academic experience to the field of everyday life.

It presents a serious problem, however. This is the problem of identity and decision making in a world devoid of certainty, a world in which differing values may be legitimate on differing grounds:

> S. It has involved the tearing away of a lot of beliefs in what has been imposed by convention and I think that it does come down to you tearing away your faith in the fact that-ah . . . [seeing that] conforming to any standard, that other people have decided, is selfish. I'm (laughs) not trying to drum it up into an emotional issue, but it's that on the important questions of what you're going to do, well, then I think you do see that ideals that have been set up elsewhere aren't necessarily the right thing. And you're exposed to more-ah, perfect ways of life that contradict each other. And you sort of wonder how could all the things be perfect?
>
> You know, in the past months, it's been a matter of having really . . . having reduced to the level where I really wasn't sure there was anything in particular to follow. I, you do begin to wonder on what basis you'd judge any decision at all, 'cause there really isn't-ah . . . too much of an absolute you can rely on as to . . . and even as to whether . . . there are a lot of levels that you can tear it apart, or you can base an ethical system that's a, presupposes that there are men who . . . or you can get one that doesn't presuppose that anything exists . . . and try and figure out of what principles you're going to decide any issue. Well, it's just that right now I'm not sure that, . . . of what the-ah, what those de-, how to make any decision at all. When you're here and are having the issues sort of thrust in your face at times . . . that is, just seeing the thinking of these men who have pushed their thought to the absolute limit to try and find out what was their personal salvation, and just seeing how that fell short of an all-encompassing answer to, for everyone. That those ideas really are individualized. And you begin to have respect for how great their thought could be, without its being absolute.

It is this problem, then, that confronts the student with the realization that he, too, faces the challenge of taking a stand, of affirming his own values and decisions through acts of personal Commitment, and that these Commitments will require of him not only all the reason at his disposal but the courage of something beyond the security which reason alone can provide.

## Position 6, Commitment Foreseen

In this study the word Commitment refers to a person's affirmative acts of choice and orientation in a relative world. The upper case "C" is used to distinguish such acts from unconsidered commitments deriving solely from familial and cultural absorptions in a dualistic world. The difference has its analogy in the theological distinction between Faith, affirmed in doubt, and simple belief. An illustration from our records would be a student who had always shared the familial expectation that he would go to medical school, and, when admitted, suddenly faced for the first time the real decision of whether he wished to become a doctor.

In common usage the word often refers more narrowly to the object or content of Commitment alone rather than to the whole act or relation. Thus, "a man's commitments" may suggest his wife, children, job, and whatever obligations or causes or expectancies he has undertaken. If, however, one includes not only these external objects but also a man's acts of choice, and the personal investment he makes in them, the word refers to an affirmatory experience through which the man continuously defines his identity and his involvements in the world (cf. Polanyi, 1958).*

This experience is then characterized by its stylistic qualities as well as by content. These qualities involve decisions as to balance in dimensions such as: narrowness vs. breadth, number vs. intensity, wholeheartedness vs. tentativeness, stability vs. flexibility, continuity vs. diversity, etc. Space will not allow of illustrations of these stylistic issues here, but it is important to note their importance for the person. Identity derives from both the content and the forms, or stylistic aspects, of Commitments, e.g., "I am a politician" and "I find I really prefer a wide range of acquaintances to narrowing down to one or two close friends." The stylistic, however, often feels to the person more proximal to the self, being experienced as the origin of choices in content, e.g., "I'm just the kind of person who ought never to get married." Being proximal, stylistic affirmations usually feel less open to alternatives than the area in which they find expression: "It doesn't matter what I'm doing so long as I feel I'm building something."

For the purposes of this scheme, Commitments are considered creative acts of structuring in that through them the individual orients himself in a world perceived as relativistic in knowledge and values. In Position 6 Commitments are foreseen as necessary to a responsible life, but they have not yet been made and experienced:

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*There are, of course, aspects of identity that appear to be passively acquired and none of one's doing, such as one's height, one's limp, or the fact that as a child one was never schooled in the arts. The question is, however, one's address to these facts: One can refuse to "accept" them, investing one's honor in stubborn battle against the irremediable; one can "resign" oneself, denying any responsibility; or one can affirm, "I am one who is so high, limps, and wishes he had been schooled in the arts as a child. This is part of who I am."

> S. A lot of people must go through a phase of sort of finding themselves alone in the world, in a way. Sort of splitting away from their family to some extent, if it's only geographically. Sometimes not geographically; he could be at home and the same thing might happen, but geography emphasizes it. And, and then they must work out new relationships to the world, I think.

> S. There was one other thing I expected--I expected that when I got to Harvard--I was-ah slightly ahead of my time in that I was an atheist before I got here--I came up here expecting that Harvard would teach me one universal truth . . . (pause). Took me quite a while to figure out . . . that if I was going for a universal truth or something to believe in, it had to come within me.

The initial intimation of the need for Commitment may come in any content area: vocation, standards of conduct, involvement in academic work, extra-curricular activities, or religion. It usually awakens a fear of a "narrowing" which is too reminiscent of the old dualistic narrowness from which the student has so recently emerged:

> S. Just have to sort of make the most of it, as it comes, and I say that's one thing you learn out of college that life is, is not one set narrow little plain. You just have to sort of, it's a very big thing, you just sort of have to ma-make your way through it as best you can after you've, experience of course is always the best teacher. That's just a question of, well, say, broadening your outlook and learning

> to be yourself. Everybody they say as they get older tends to get more set in their ways but we hope not. If, if we can stay flexible as much as you can, it's better. It's not good to get too narrow-minded or set in your ways.

One must somehow hold one's breath and plunge, trusting:

> S. You just have to jump into it, that's all, before, before it can have any effect on you. And the farther in you force yourself to get in the first place, the more possibilities there are, the more ideas and concepts there are that can impinge on you and so the more likely you are to get involved in it. Actually you have to make some kind of an assumption in the first place that it's worthwhile to get into it, and that you're capable of doing something once you get into it.

## Position 7, Initial Commitment

This Position is marked quite simply by the student's report of some first experience of Commitment:

> S. This may sound sort of silly, but I've developed a sense of, ah, a set of morals. I never had to use them before I got here, but since I got here and, ah, have seen what goes on--they may be unusual, sort of but I don't think so--I, ah, had to develop them because it's something I never ran into before. It's, well, I'm out of high school now, I'm out of that sort of thing, kid stuff I might call it now. I'm a freshman in college, I find that kid stuff kind of ridiculous. Ah, here I'm out in the big world, more or less. And I've come to things and decisions I've never had to make before, and I've made them. And afterwards, thinking it over, I've said I've done this because, well, it was right, and the alternative wouldn't have suited me and I wouldn't have felt good about it. Ah, maybe somebody else wouldn't have cared, maybe somebody else would have told me just the opposite.

From this experience there begins to evolve a more intimate realization of its nature:

> S. There are so many values you can't possibly line up all of them. Maybe what you do is pick out one, or two, or three, after a while. It's not a fast thing. It's slow. But you pick out something that you kind of like after a while, rather than trying to do what you see is being liked. I mean, you come here, and you get a total view of everything, and you see a whole lot of values. I mean, you're confronted with them. Every one of them is a good thing in its own way, and so you instinctively want to be at least a little bit aware and take part in all of them. But you can't. I mean, it's impossible just from a pure mechanical point of spending time. You kind of focus on the type of career you want and when you think about that, then if you're going to work toward it, it has its own imperatives. It means that you have to drop certain things and focus more on others. If you want to teach, that means you emphasize studies and drop clubs, and a certain amount of social life and some athletics. You just let these things become peripheral. (Pause) And you're sure about that.

The further unfolding of the personal meaning of Commitment as an on-going activity--particularly in that balancing of its qualitative aspects from which one creates one's life style--will be represented in Positions 8 and 9.

## Position 8, Orientation in Implications of Commitment

## Position 9, Developing Commitments

In these last Positions of development the steps are qualitative rather than structural, representing degrees of ripeness in an art of living. Position 8 represents a period of exploration of the implications of Commitment(s) made. The initial Commitment, say of "deciding what I want to do," does not solve as many problems as was hoped; indeed it raises others:

> S. I don't think it reduces the number of problems I face or uncertainties, it just was something that troubled me that I thought was--I always thought that it was an unnecessary problem and based on my limited experience with a broadened world . . . (Now) I don't see it as something that is passed; it is something I have to decide continually.

Many of these new problems are the stylistic issues mentioned above, such as those of tentativeness vs. certainty:

> S. [correcting his own word] Well "tentative" implies . . . perhaps, I mean, uncertainty and, and readiness to change to anything, and-ah, it's not that. It's openness to change but, but not looking for change, you know-ah. . . . At the same time-ah, believing pretty strongly in what you do believe, and so it's not, you know, it's not tentative. . . .

And again:

> S. So it's a commitment. It's a real, definite commitment, with a possibility of (laughs) of withdrawing from the commitment, which I think is the only realistic kind of commitment I can make, because there _is_ a possibility of change here.

And between contemplative awareness and action:

> S. I don't . . . I don't brood. . . . I think that's a waste of time (laughing), I mean I'd rather do something than just sit around and . . . brood about it. Sometimes I . . . I'm just about . . . sometimes you do hasty things . . . it's a certain amount of relief to . . . just . . . just to do something. But . . . now the only . . . the only

> broodiness is sort of an inward broodiness . . . about whether . . . whether I'm on the right track . . . the right field. There are all kinds of pulls, pressures and so forth . . . parents . . . this thing and that thing . . . but there comes a time when you just have to say, "Well . . . I've got a life to live . . . I want to live it this way. I welcome suggestions. I'll listen to them. But when I make up my mind, it's going to be me. I'll take the consequences."

The elaborations of these evolving experiences require illustration by excerpts too lengthy to include here. Their destiny is clearly suggested in several of our students' records: a way of life in which the person finds in the development of his Commitments, and in the style of his responsibility, a sense not only of his identity but of his community. Position 9, representing this open and developing maturity, rounds out the scheme. We had thought the Position might lie beyond that reach which experience could provide a college student, but the judges did in fact use the rating on occasion. The average rating for one senior placed him between Positions 8 and 9.

In view of popular notions of this particular generation of students as "uncommitted," "alienated," or "silent," the following finding of this study seems impressive: on the basis of their average rating by the judges, seventy-five per cent of our sample were judged to have attained the degree of Commitment characterized by Positions 7 and 8. A sense of the meaningfulness with which the judges used the concept of Commitment to describe the maturation evident in the students' reports may be derived from two tables:

## TABLE A

### NUMBER OF SENIORS WITH AVERAGE RATING IN POSITIONS OF COMMITMENT
### (Total Sample N=20)

| | Position | N |
|---|---|---|
| Average rating | 6.5 - 7.4 | 8 seniors |
| Average rating | 7.5 - 8.4 | 7 seniors |
| Total | | 15 |

## TABLE B

### INSTANCES OF INDIVIDUAL RATINGS IN POSITIONS OF COMMITMENT
### (Six Judges, 20 Students = 120 Ratings Per Year)

| Position | Fresh | Soph | Junior | Senior |
|---|---|---|---|---|
| 7 (Initial Commitment) | 3 | 11 | 48 | 42 |
| 8 (Experience of Implications) | 0 | 0 | 14 | 55 |
| 9 (Developing Commitment) | 0 | 0 | 0 | 13 |
| Totals | 3 | 11 | 62 | 110 |

(Note: the reliability of ratings was proved to be independent of the judge's knowledge of a student's year in college. See Chapter I.)

## Alternatives to Growth: Temporizing, Retreat, Escape

In any of the Positions in the main line of development a person may suspend, nullify, or even reverse the process of growth as our scheme defines it: 1) He may pause for a year or more often quite aware of the step that lies ahead of him, as if waiting or gathering his forces (Temporizing). 2) He may settle for exploiting the detachment offered by some middle Position on the scale, in the avoidance of personal responsibility known as alienation (Escape). 3) He may entrench himself, in anger and hatred of "otherness," in the white vs. black dualism of the early Positions (Retreat).

Temporizing, defined as a pause in growth over a full academic year, does not itself involve alienation, even though it may contain that potential. Sometimes it is even a time of what one might call lateral growth--a spreading out and a consolidation of the structure of a Position recently attained. At other times it seems more fallow, suspended, poised. Often enough a student will say, "I'm just not ready yet."

The destiny of such periods--whether they will terminate in a resumption of growth or in a drifting into Escape--seems to be foretold in the tone in which a student waits. He may speak as one waiting for agency to rise within himself, for himself to participate again in responsibility for his growth. Or he may speak as one waiting for something to happen to him, something to turn up that will interest him enough to solve all problems.

Temporizing can occur at any Position on our scale. Here, for example, a sophomore finds himself still wandering, after two years, in the diffuse relativism of Position 5 into which his opposition to Authority had led him in high school:

> S. Well, I can't say much except a complete ah, relativistic outlook on everything. I used to be a very militant agnostic in high school, and though I'm no longer militant, I'm . . . still an agnostic. I don't do the debating with anybody any more, probabaly because I've come to the conclusion that in many respects the other side is quite worthwhile for a great many people . . . and . . . even for me perhaps thirty years from now. But not right at the moment. I've become, my whole dominant theme has been sort of just a pragmatic approach to everything. At times I feel this is highly inadequate and it perhaps is just all an excuse for . . . thinking what you want to think.
>
> But I can't see any other answer to the problem. It doesn't seem possible to, to, to determine any absolute, so . . . so I'm sort of stuck with the relativism that leaves me a little bit dissatisfied. . . . It's still basically the same relativism that I, that I had when I was back in high school.

Waiting for experience to inform one can slip toward letting fate be responsible:

> S. Well, I've got a pretty--well my problem is that I've got a clear view of three or four things that I'd like to be doing. Can't for the life of me figure out which one I want to follow. Ah, foreign service, college teaching, politics. . . . I don't know which one I want to follow. Again here is the-ah . . . the problem, I think, is . . . one between activism and detached analysis, and I can't figure out which one, ah, I'm best for, and whether I can figure out a synthesis of both in some field. I don't know, perhaps I'll wait and see what, see what time brings, see if I pass the foreign service exam. Let that decide.

Followed a few steps further, the temptation leads into the style of alienation and irresponsibility we call Escape. "Temptation" and "irresponsibility" are moral terms, and I use them advisedly. In our records, students who speak from Escape express guilt--a malaise they experience not so much in regard to the social responsibilities from which they are alienated as in regard to their own failure toward themselves.

Our records reveal two roads leading to two forms of Escape which differ in quality and structure. The following excerpts illustrate mid-points along each of these roads. The first leads toward a limp dissociation:

> S. It ah, . . . well, I really, I don't know, I just, I don't get particularly worked up over things. I don't react too strongly. So that I can't think. I'm still waiting for the event, you know, everyone goes through life thinking that something's gonna happen, and I don't think it happened this year. So we'll just leave that for the future. Mainly you're, you're waiting for yourself to change, see after you get a good idea, continued trial and effort, exactly how you're going to act in any period of time, once you get this idea, then you're constantly waiting for the big change in your life. And, it certainly didn't happen this year. . . .

"Dissociation," the term we used to denote the potential of this "drifting," refers to a passive delegation of all responsibility to fate. Its tone is depressed, even when pleasure is still possible in irresponsibility. The sense of active participation as an agent in the growth of one's identity is abandoned. Its final destiny lies in the depersonalized looseness of Multiplicity (Multiplicity Correlate, Position 4) dissociated from the challenge of meaning.

In contrast, the more strenuous intellectual demands of Relativism provide an escape in which a vestigial identity can be maintained in sheer competence. Here the self is a doer, or a gamesman, and its opportunism is defended by an encapsulation in activity, sealed off from the implications of deeper values.

> S. I know that I had trouble-ah first of all in just listening to the lectures, trying to make out what they meant. . . . These-ah-ah, the pursuit of the absolute first of all. . . . And then I . . . (laughs) sort of lost the absolute, and stuff like that. I think that gradually it sunk in, and, I don't know, maybe it's just. . . . Well, it came to me the other night: if relativity is true on most things, it's an easy way out. But I don't think that's . . . maybe that's just the way I think now. . . . Well, in, in a sense I mean that you don't have to commit yourself. And maybe that's just the push button I use on myself . . . right now, because I am uncommitted.

The sense of full alienation in either of these modes of Escape cannot be conveyed by short excerpts, but the following are suggestive if considered as expressive of the tone of an entire report:

Dissociation:

> S. I never get particularly upset about anything, but my father feels I'm wasting my time and potential and his money, and all that. But I don't know, I don't really see any way this thing can be resolved; I've just accepted it. . . . But I would like to make my peace with the family.

> S. I can always rationalize my way out of anything. I mean, if I ever start to feel this way, I feel that it's all sort of

futile; I haven't done anything yet and it's too late, why start now? . . . defeated, and all that. Oh, I can always find something to do to forget about it, or just tell myself it's ridiculous, and it never really bothers me for any length of time.

S. I've thought quite a bit about this: I've never really identified myself definitely with anything. I hadn't permitted myself to so far as grades were concerned or as far as friends--particularly in a few isolated cases. I had just a sort of "I'm me, and I just like to stand out there and look things over" attitude, and I don't know whether this is good or bad.

S. It turns out to be tough because of the fact that, that you have these courses that tempt you to, to not do anything at all about them and therefore you're apt to, ah, get slightly lower grades than you would anyway, and it was, you know, what the heck, I wasn't interested anyway--next year, you know, it'll all be different when I'll be able to take almost all courses that I want to take, and so forth and so forth.

Encapsulation:

S. It seems to me that the security that you gain from knowing how you're going to handle . . . a situation which isn't really that important now . . . is completely overshadowed by the worry . . . that it causes if you try to ascertain what you're going to do. And I think . . . oh, if you have, if your development is such that you can handle situations as they arise . . . and that you have more or less an intelligent point of view and a rational outlook, that you could solve any problem that comes up with a minimum of time, trouble, and . . . I don't think that it's necessary to worry about things so far in the future. I mean, opportunities may present themselves, or completely change my life, and the, the, and of course my wife

> and baby's life, too. I may be offered who knows what, right after I graduate, you know, you never know, and there's no chance of really-ah . . . planning so far ahead as to take into account; you can't do it. . . .
>
> It's just like, I mean, it's just like playing football. As long as you have the right position and the right balance now, you're ready for anything that may come, . . . whereas, if you plan for one special move, a change of plan on the opponent's side and you're right off on left field, and get faked out. As long as you're ready for anything and, and, and, and in good condition, more or less, and in football it takes a good body and a clear mind, and the same thing applies to . . . anything in general and being alert you're ready to . . . handle any situation as it arises and that's more or less the "full philosophy," unquote, that I've, that I've used throughout my life . . . if I may be so bold as to say that; and . . . since I, it has been successful for me, and I've, I've found it very satisfactory to me, I . . . that's, that's just the way it is with me. And I don't think I recommend it for anyone, of course. I, I'd be a fool to, but I do think it has its merits, and for me it's the, the one way to do things.
>
> S. So the best thing I have to do is just forget about deciding, and try to . . . I mean, not give up on any scheming or any basic set of ideas . . . that'll give myself, they'll give me a direction. Just give up completely, and when it comes down to individual choices, make them on what I feel like doing emotionally at the moment.

A particular form of Escape, long recognized by philosophers and theologians, is "escape into commitment." The distinction between Commitment as a step of growth in a relativistic world and commitment as an escape from complexity is usually quite clear in our records. In the latter, commitment is yearned for as a reinstitution of embeddedness. The hope seems to be that through intensity of focus, all ambivalences will be magically resolved. The event is envisaged either as something one hurls oneself into through despair of choosing, or as some "interest" that emerges from the environment to absorb one totally, and blessedly.

> S. It would be great if a bolt of lightning comes down, in some way I could be tested, and find out that I have a great talent for music (laughs) and then really just drop everything and go into that. But I'm sure it won't happen, or I'm almost sure. But it could just as well be anything as music.

And yet, one can be aware of the irresponsibility of the principle that any commitment is better than no Commitments:

> S. I've seen this all along: withdraw into your shell; this is the easy way. I mean you could take a basic, just a fundamental commitment and be done with it.
>
> C. And be done with it. Yes. There you are.
>
> S. That's an easy way out. The other way is pretty frustrating.

Perhaps, though, it only seems as if it would be easy, or easier. Some one all-encompassing "shell" of a "commitment" would promise protection from all the complexity, all the competing responsibilities that threaten to overwhelm one's freedom with their demands, or to leave one paralyzed, as a student put it "like a donkey between forty bales of hay." However the sustained denial of one's realization is known to require immense energy.

This energy is evident in the dogmatic moral intensity of that reactive entrenchment in Positions 2 or 3 which we termed Retreat. In Position 1, we noted, "prejudice" and intolerance were inherent structurally, but the enemy of "bad others" was far away. The main line of development has traced the growing person's assimilation of the diversity of others' views and the evolution of a rational basis for tolerance in the midst of Commitment in a relativistic world. In this tolerance one may fight for one's own beliefs but in full respect for the rights of others.

Under stress (of fear, anger, extreme moral arousal, or simple overburden of complexity) it is possible to take refuge in the all-or-none forms of early dualism. At this point reactive adherence to Authority (the "reactionary") requires violent repudiation of otherness and of complexity. Similarly, reactive opposition to Authority (the "dogmatic rebel") requires an equally absolutistic rejection of any "establishment." Threatened by a proximate challenge, this entrenchment can call forth in its defense hate, projection, and denial of all distinctions but one.

In this structure of extreme proprietary "rightness," others may be perceived as so wrong and bad as to have no "rights," and violence is justified against them.

Retreat is rare in our records and where it occurs it cannot be illustrated by concise excerpts. In recent years its structure is exemplified vividly in the forms of thought of the extreme "radical" left in student revolt. These forms may be examined in the statements of the "radical" as opposed to the "liberal" students speaking in Students and Society (Center for the Study of Democratic Institutions, 1968). The forms are of course identical with those employed by persons and groups of the extreme radical right.

## A Note on Resumption of Growth

Alienation in Escape or Retreat need not be permanent. It may be for some persons a vital experience in growth--part of the very temptation in the wilderness that gives meaning to subsequent Commitment. Emergence may start in any affirmation of responsibility.

Briefly put:

> S. Just saying, "O.K., well, that's what I can do, and that's what I can't do," in a way, and to be satisfied with my potential and not dream about other things and to try to develop what I have found that I have and not to worry about the things I don't have.

Often recovery occurs as a kind of "lifting" of depression, or a resurgence of care:

> S. Emotionally I think I was trying to find some sort of rationalization for my feeling that I wasn't going to achieve anything. These are certainly not the values I have now. They're not the goals I want now. I don't think I'm going to be happy unless I can feel I'm doing something in my work.

> S. I was sort of worried when I came back, wondering if, "Well, shucks, am I just going to lie down on the job or am I going to do it because it has to be done?" I found out that I wasn't doing it because it *had* to be, but because things interested *me*. Some things didn't interest me so much, but I felt I couldn't let them slide and I took them as best I could, in what order I could.

Alienation cannot be prevented. And indeed it should not be. If it could be prevented, so could that detachment which is man's last recourse of freedom and dignity _in extremis_. The educator's problem is therefore certainly not to prevent alienation, or even to make the option less available. His problem is to provide as best he can for the sustenance of care. (See Conclusion)

# CHAPTER I

# THE RATING OF INTERVIEWS WITH COLLEGE STUDENTS ON A DEVELOPMENTAL SCHEME

William G. Perry, Jr.
Norman A. Sprinthall
and
Frank J. Jones

## INTRODUCTION

To test the validity of our developmental scheme we submitted the Chart of Development to six judges, together with a Judge's Manual. We then presented them with various students' reports, under conditions to be described below, and asked them to estimate the Position on the Chart most expressive of each report. The validity of the scheme, in respect to the data of the study, would rest upon 1) the reliability of overall agreement among judges, and 2) the extent to which agreement was evident in all the reports rated.

### The Judges

To perform the ratings, we enlisted as judges five graduate students and one housewife. Four of the graduate students were in the field of English, and one in the field of Comparative Literature. The housewife was a recent college graduate who had majored in Philosophy. None had any extensive formal training in Psychology.

### Procedures

The judges first met with the investigators for two training sessions. In the first they listened to a general description of the nature of the study and received copies of the Judge's Manual, the Chart of Development and a sample of a student's report. In the second session they raised such questions as came to them from their study of the materials.

The judges then undertook the first rating operations: the rating of a random sample (by number table) of twenty students' complete four-year reports, taking one student's set of reports at a time. Within each set of four-year reports they rated each year separately, with the full four-year sequence before them. During this operation, the judges met on a weekly basis to hand in their ratings of each student's reports to discuss the problems encountered, and to receive the next student's reports.

Subsequently the judges undertook three additional tasks: the rating of single reports disguised as to college year; the rating of short excerpts, and the rating of condensed edited forms of four-year sequences in comparison with the full unedited forms.

## Manual and Rating Forms

The Judge's Manual contained a general statement of the aims of the study and the following directions for the task of rating interviews in relation to the Chart of Development:

### INSTRUCTIONS FOR JUDGING

> The chart outlines and codes various positions along the scheme of development described above. The game of judgment is to plot for each interview the most appropriate position on the developmental scheme.
>
> The phrase "game of judgment" is used on purpose. Persons are bigger than any one

position on any scale, and much more complicated. Positions on a scale become compartments which are given to the judge as "givens" and which he is asked to fit persons "into." The intellectual task is frustrating enough; the judge should not have to wonder in addition whether he is being asked to take a serious part in a sacrilege.*

No moral problem would exist if we could remain clear in our minds that the person is the "given" and the scale the variable. If such a chart as this one could be thought of as a poorly transparent grid to be moved about in front of one until the person could be seen "least worst" through it, any difficulties or distortions would remain clearly the fault of the chart; and if it were hard to see persons through it, the loss would be the scalemaker's alone.

Such an abstract grid is just what the chart is, of course, but in judging several students (entities) against one chart (a system) the chart slips into the background and leaves one feeling that one is judging not the chart but the students. Inevitably one asks, "Where does this student stand on the chart?" After a few tries at this form of sin, one is tempted to sin in opposite ways.

The middle ground is to play seriously at a game in which the limits and rules are clear to scalemaker and judge in common.

Assumptions of the game:

1. No twenty charts together could begin to account for the complexity of human development, but every chart pretends to, all alone.

2. Persons grow by waves, spirals, leaps, and organismic reorganizations, very rarely linearly; charts assume they grow linearly.

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*In any scale of "growth" there are assumptions about values. We shall discuss them in our next meeting.

3. Persons grow at different rates in different ways in different areas and functions in their lives. Chartmakers ask judges to place a person at one point on a scale, obviously a complex and dubious operation.

4. The purpose of the whole undertaking is to test for the existence, in the recorded interviews, of the kind of development we think we see in them. If judges tend to agree in their coding of interviews, the presumption is that they can see what we think we see.

We will want to measure the agreement of judges on three levels or judgments which we will call steps (even though in actual judgment a judge may make them in reverse order or all at once).

These are:

I. Number of position, 1-9, along linear scale on chart.

II. Certain coded qualities, tendencies and structures under each position, and

III. Pace or direction of movement.

Judges may develop different styles of handling the game, but the following is suggested:

> Read all four interviews once, checking in the margin at significant passages and making some notes. Make a first guess at judgment (full code) at end of each interview and keep a record of it. Reread, make final judgment, and record reference to most significant passages used in judgment.

Special considerations:

The main rating form is set for the time of the interview (late spring of each year). If a student refers to an earlier time, or several stages of growth over a year (viz.: "When I came here this fall I guess I thought..." etc.), where these references give clues to path of

> development over the year, use the section which is captioned "At a previous period..." etc. If necessary, use a second (and third) rating form and indicate time and position on each.

(End of excerpt from Judge's Manual)

A sample of the Rating Forms used by the judges for the four-year sequence appears on the following pages. The sample is taken from the file of completed ratings. The reverse of each rating sheet, on which the judge noted page and line references for the particular passages of the interview on which he most relied for judgment, is omitted. The judge's entries have been underlined.

Student No. _____ Judge __________

## TO THE JUDGE

If you have difficulty making a first choice of positions you are asked to list alternatives to it. If your first choice seems so firm that alternatives do not seem really plausible, simply repeat your first choice where alternatives are asked for.

Where you do find alternatives plausible, they may be so on different grounds in different instances, viz.:

a) Most of the evidence may be ambiguous. That is, it is hard to decide whether the student, as a whole, is best seen at, say, Positions 5 or 6.

b) Parts of the evidence may conflict. That is, in some statements, areas, or ways the student may appear pretty clearly at 5, in others pretty clearly in 6 or some other Position.

c) The wording of the chart and theory may be ambiguous; that is, placement may depend on the meanings ascribable to concepts in definitions of positions.

Be sure to specify in your comments.

Year: Fresh x___ Soph____ Junior____ Senior____

At time of Interview:

1. I see the student best through this position . . . . . . . . . . . . . . 2 A-M

2. I see the student next best through this position . . . . . . . . . . . . . . 3 A(M)
   (If you see no "next best," enter (1) again)

3. I had the most difficulty deciding between (2) above and . . . . . . . . . . 3 A(M)
   (If little difficulty, enter (2) again)

At a previous period referred to in this interview
(specify____________________________):

1. I see . . etc. . . . . . . . . . . . . . ________
2. As above . . . . . . . . . . . . . . . . ________
3. " " . . . . . . . . . . . . . . . . ________

Comments, general:

Difficult interview. Student not interested in doing much talking.

Comments on nature or grounds of alternatives (refer if you wish to your references on next page):

Only on page 6 does he indicate much recognition of M.

Year: Fresh____ Soph x Junior____ Senior___

At time of Interview:

1. I see the student best through this position . . . . . . . . . . . . . . 3 A(M)
2. I see the student next best through this position . . . . . . . . . . . . . . 3 A(M)
   (If you see no "next best," enter (1) again)
3. I had the most difficulty deciding between (2) above and . . . . . . . . . . 3 A(M)
   (If little difficulty, enter (2) again)

At a previous period referred to in this interview (specify 6, 19-21; 8, 21-22):

1. I see . . etc. . . . . . . . . . . . . . 1 Ad→ M
2. As above . . . . . . . . . . . . . . . 1 Ad→ M
3. " " . . . . . . . . . . . . . . . . 1 Ad→ M

Comments, general:

More confidence than freshman year. Same general tone all the way through, as though student had known what to say from the beginning.

Comments on nature or grounds of alternatives (refer if you wish to your references on next page):

Year: Fresh____ Soph____ Junior__x__ Senior____

At time of Interview:

1. I see the student best through this position . . . . . . . . . . . . . 5 A-R
2. I see the student next best through this position . . . . . . . . . . . . . 5 A(R)
   (If you see no "next best," enter (1) again)
3. I had the most difficulty deciding between (2) above and . . . . . . . . . 5 A(R)
   (If little difficulty, enter (2) again)

At a previous period referred to in this interview (specify____________________________):

1. I see . . etc. . . . . . . . . . . . . . ________
2. As above . . . . . . . . . . . . . . ________
3. " " . . . . . . . . . . . . . . . . ________

Comments, general:

Student recognizes relativism, but still feels confident to render "objective" judgments and accept "what seems to be true."

Comments on nature or grounds of alternatives (refer if you wish to your references on next page):

I'm not sure the student ever recognizes the true implications of relativism.

Year: Fresh____ Soph____ Junior____ Senior x

At time of Interview:

1. I see the student best through this position . . . . . . . . . . . . . 6 A(R)C
2. I see the student next best through this position . . . . . . . . . . . . . 6 RC
   (If you see no "next best," enter (1) again)
3. I had the most difficulty deciding between (2) above and . . . . . . . . . 6 RC
   (If little difficulty, enter (2) again)

At a previous period referred to in this interview (specify________________________):

1. I see . . etc. . . . . . . . . . . . ________
2. As above . . . . . . . . . . . . . . . ________
3. " " . . . . . . . . . . . . . . . ________

Comments, general:

Student recognizes past mistakes, but tends still to think that someone in authority should have helped him. C, of course, has been pretty constant all along.

Comments on nature or grounds of alternatives (refer if you wish to your references on next page):

At times he drops the reference to A.

(End of illustrative sample of Rating Forms)

In the course of the judges' discussions following each unit of rating, they uncovered ambiguities in the terminology of the Chart, and in the third meeting formulated two alternative sub-structures in the students' reports not provided for on the Chart. We revised the Chart accordingly for future work, but made no remedy of the disagreements which had already resulted from these ambiguities and omissions. In general, despite our expectation of a "learning period," the judges reached their high level of agreement at the outset. Two judges did move slightly toward the mean over the first five ratings, but the improvement in overall reliability did not approach significance.

## Ratings Analyzed

From the wealth of data provided by the Rating Forms we selected for analysis only the fundamental:

1) First-choice rating of Position, by number only.

2) First-choice rating of special categories indicating deviations from growth: Temporizing, Escape and Retreat.

This selection provided sufficient data for the estimate of overall operational validity of the scheme. It left untouched the data regarding specific sub-structures and their normative sequences. That the judges tended to agree about these sub-structures is evident to the eye in the recorded ratings, but the statistical analysis of this evidence was beyond the scope of the study.

We are indebted to William W. Cooley for his advice regarding statistical procedures appropriate to assessing the judges' ratings. In computation we were assisted by William Young and David W. Panek.

## RATING OF FOUR-YEAR SEQUENCES

### Reliability of Average Ratings for Each of the Four Years

The judges first rated the four sequential interviews of twenty students. Ten of these students were drawn by random-number table from the First Sample (Class of '58) and ten from the Second Sample (five each from Classes of '62 and '63). The judges first rated the reports of five students from the First Sample, then of five from the Second Sample, then of five from the First Sample, and then five from the Second Sample.

To test the overall reliability of these ratings, we computed an analysis of variance of the rating from all judges for all students for each year. Since the judgments were derived from repeated observations of the same students over time the usual assumption for an analysis of variance procedure would not hold. We therefore modified the technique by subdividing the within-group sums of squares into two components (1) the sums of squares due to judges and (2) the sums of squares due to individual variation of each student. The ratio of the mean square for judges to the error mean square is distributed approximately as F.*

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*The procedures for the statistical analyses presented in this section were derived from B. J. Winer, Statistical Principles in Experimental Design (New York:

Table 1 presents the results of this procedure.

TABLE 1

ANALYSIS OF VARIANCE FOR EACH YEAR

(6 Judges, 20 Students, 9 Pt. Scale)

| Source | SS | NDF | F Ratio |
|---|---|---|---|
| **Year 1** | | | |
| Between | 175.6 | 19 | -- |
| Within | 32.2 | 100 | -- |
| Judges | 6.3 | 5 | 4.34 (not sig.) |
| Error | 25.9 | 95 | -- |
| **Year 2** | | | |
| Between | 116.5 | 19 | -- |
| Within | 76.6 | 100 | -- |
| Judges | 8.9 | 5 | 2.51 (not sig.) |
| Error | 67.7 | 95 | -- |
| **Year 3** | | | |
| Between | 142.7 | 19 | -- |
| Within | 96.1 | 100 | -- |
| Judges | 9.8 | 5 | 2.17 (not sig.) |
| Error | 86.3 | 95 | -- |
| **Year 4** | | | |
| Between | 201.1 | 19 | -- |
| Within | 88.6 | 100 | -- |
| Judges | 8.1 | 5 | 1.90 (not sig.) |
| Error | 80.6 | 95 | -- |

McGraw-Hill, 1962). Specific reference is made to single factor experiments with repeated observations, Chapter 4, pp. 105-139.

Since none of the F ratios for judges' effect is significant, it can be concluded that the variation in scoring due to the judges is not significant. In order to illustrate the degree of agreement across the six judges, we computed reliability coefficients for each year in two ways. First we computed the estimated reliability of the average rating of all six judges for each year and then computed the estimated reliability of a single rating for each year.

The average reliability for all six judges' scores (e.g., the average of the rating by judges of any given year for any student) was computed by using 1- (the error sums of squares divided by the between sums of squares). The results are presented in Table 2 (using data from Table 1):

### TABLE 2

### ESTIMATED RELIABILITY

(Average rating over all six judges, NDF = 19,95)

| | Between SS | Error SS | r |
|---|---|---|---|
| Year 1 | 175.63 | 25.96 | +.966* |
| Year 2 | 116.50 | 67.70 | +.875* |
| Year 3 | 142.75 | 86.29 | +.872* |
| Year 4 | 201.0 | 80.60 | +.916* |

$$r = 1 - \frac{\dfrac{\underline{\text{Error Sum of Squares}}}{\text{NDF}}}{\dfrac{\underline{\text{Between Sum of Squares}}}{\text{NDF}}}$$

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*Significant at .0005 level. (See H. M. Walker and J. Lev, Statistical Inference [New York: Holt, 1953], p. 470.)

The estimated reliability of a single judge in each year was also computed in a similar manner. In this case the procedure involved: The (Mean Sum of Squares Between Groups minus the Error Mean Square) divided by (the Mean Sum of Squares Between Groups plus (the Error Mean Square) (k - 1)) where k = the number of judges. The estimated reliabilities for a single rating were: yr. 1 = +.82, yr. 2 = +.54, yr. 3 = +.53, yr. 4 = +.65.

Since the judges had rated the protocols separately by year, we have reported the reliability coefficients accordingly, both for the reliability of the average rating of all six judges and the reliability for a single rating.

In Table 3 we present the Average Judged Position for all 20 students over the four-year period.

The standard error for each position for each year was computed to illustrate the stability of a given score. The standard error in this case would be the square root of the product of the Error Mean Square and a term involving the estimated reliability, i.e.

$$SE = \sqrt{(MSE)\ (1 - r_{xx\ (est.)})}$$

Thus:

| Year | | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| MSE | = | 0.273 | 0.714 | 0.908 | 0.849 |
| SE | = | 0.0963 | 0.291 | 0.341 | 0.267 |

For illustrative purposes, the average rating for Student No. 1 in the first year would lie between 2.23 and 2.43 68% of the time, while in the fourth year his average position would fall between 5.56 and 6.10. These

## TABLE 3

## AVERAGE JUDGED POSITION

(N = 6 Judges, 9 Pt. Scale)

| Student | Year 1 | Year 2 | Year 3 | Year 4 |
|---|---|---|---|---|
| 1 | 2.33 | 4.17 | 5.67 | 5.83 |
| 2 | 3.00 | 5.33 | 7.33 | 8.33 |
| 3 | 1.83 | 2.83 | 2.50 | 2.33 |
| 4 | 5.0 | 5.50 | 5.17 | 6.83 |
| 5 | 3.33 | 4.67 | 5.50 | 6.00 |
| 6 | 3.67 | 5.33 | 7.33 | 8.33 |
| 7 | 3.33 | 4.67 | 5.67 | 6.67 |
| 8 | 3.50 | 4.67 | 5.17 | 7.17 |
| 9 | 2.17 | 3.50 | 5.33 | 6.50 |
| 10 | 5.0 | 6.17 | 6.83 | 8.0 |
| 11 | 5.0 | 6.0 | 6.83 | 7.33 |
| 12 | 2.5 | 4.0 | 5.67 | 6.67 |
| 13 | 5.33 | 6.17 | 7.00 | 7.83 |
| 14 | 3.0 | 3.67 | 5.17 | 6.17 |
| 15 | 5.0 | 5.83 | 6.50 | 7.17 |
| 16 | 4.5 | 5.33 | 6.00 | 7.33 |
| 17 | 5.17 | 6.17 | 7.00 | 8.17 |
| 18 | 5.0 | 5.67 | 6.33 | 7.67 |
| 19 | 5.33 | 6.00 | 6.67 | 7.67 |
| 20 | 5.67 | 6.00 | 6.83 | 7.67 |

figures state in an alternate form the stability of the agreement among the judges in their rating of each of the four years, the strongest agreement obtaining to the reports from the freshman and senior years.

Using the more usual procedures for inter-judge correlation, the same relationship of substantial agreement is again illustrated. Table 4 represents the inter-correlation matrix for all six judges. Of itself, such a procedure might be suspect. However since the modified analysis has already shown the judges to agree in the use of the scheme, the matrix can be viewed as further confirmation of the findings.

TABLE 4

INTER-CORRELATION MATRIX

(6 Judges, 20 Students, 4 Yrs.)

| Judge | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | 1.00 | .74 | .78 | .70 | .70 | .78 |
| 2 | | 1.00 | .70 | .79 | .77 | .88 |
| 3 | | | 1.00 | .64 | .84 | .80 |
| 4 | | | | 1.00 | .68 | .81 |
| 5 | | | | | 1.00 | .83 |
| 6 | | | | | | 1.00 |

## Range of Reliability of Rating, by Students

We were concerned to know whether the validity of our scheme suggested by the reliability of averaged ratings was limited to the reports of certain students and irrelevant to others. We therefore examined the range of the reliability of the ratings of different students' four-year protocols. The range was from .978, for the student about whose reports the judges most agreed, to .815 for the student about whose reports they agreed the least. This range is sufficiently narrow, centering closely upon the highly significant overall reliability noted above, to warrant the reading that the processes of development described by the scheme were reliably evident for the judges in the report of every student in the sample rated.

## Trend Analysis

Examination of the mean judged position for each student over the four years, as indicated in Table 3, suggested that the development measured was monotonic and possibly linear. Therefore we decided to test the degree to which the apparent trend was linear or quadratic or cubic. An analysis of variance was computed to see if the variation due to year was significant. Table 5 presents these results. The F Ratio for year, 622.3 with 3 and 97 degrees of freedom, is of course highly significant.

## TABLE 5

## ANALYSIS OF VARIANCE

(Students and Year in College)

| Source | SS | NDF | MS | F Ratio |
|---|---|---|---|---|
| Between Students | 58.61 | 19 | -- | -- |
| Within | 958.62 | 100 | -- | -- |
| Year in College | 911.19 | 3 | 303.70 | 622.3 |
| Error | 47.43 | 97 | -- | -- |

The variation due to year in college was then divided into three possible components, (1) a linear component, (2) a quadratic component, and (3) a cubic. The resultant F Ratios were (1) linear = 197.7 ($P < .0001$), (2) quadratic = 0.101, (3) cubic = 0.03. This indicates a strong linear trend in the judged positions throughout the four-year period in college.*

If we go back and examine the judged position in Table 3, we will note that only two of the twenty students were judged in a manner which revealed non-continuous growth, as defined by the scale, throughout the four years. Further, the trend analysis would indicate that the continuity of a student's growth is independent of the point at which the student is rated in his freshman year.

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*The trend analysis procedures can be found in Winer, B. J. (1962), Chapter 3, p. 70.

## Differences in Year of Entrance

Since the rated sample was selected from three different entering classes, '58, '62, and '63, we undertook to test the impression of the interviewers to the effect that, compared with students of the First Sample, students of the Second Sample had seemed more advanced in their freshman year. A three group F test was first computed to examine the variation across the three classes ('58, '62, '63) on judged position for all four years. The resultant F with 2 and 73 degrees of freedom was 9.076 ($P < .01$). Since the F Ratio was significant, indicating an overall difference in the classes, we then sought out the source of variation by examining the judged position across each class for the four years. These results are presented in Table 6.

TABLE 6

AVERAGE JUDGED POSITION FOR EACH CLASS

('58, '62, '63)

| Year | Class '58 (N=10) | '62 (N=5) | '63 (N=5) |
|---|---|---|---|
| Fresh. | 3.31** | 4.16 | 5.13** |
| Soph. | 4.68 | 5.13 | 5.83 |
| Jr. | 5.65 | 6.23 | 6.56 |
| Sr. | 6.59 | 7.03 | 7.70 |

**Significant paired difference

The results indicated that the only significant paired difference was between the freshman years of the Classes of 1958 and 1963.* The analysis used the mean square error as the estimate of the pooled variance for an unbiased test of mean differences.

In addition, Table 6 indicates a trend or "march," which, although not reaching significance between each step, indicates that each class was rated at a point further along on the scheme in each of the four years, the major difference being in freshman year.

This finding corroborated the impressions of the interviewers who, after listening to freshmen of the Second Sample, remarked, "there are no freshmen anymore."

The interpretation of the finding, however, is hazardous. Speculation should consider a range of possibilities. The difference may arise purely from variations in sampling (see pp. 90 ff.). The First Sample was selected on the basis of CLEV score, its average SAT was somewhat lower than the average of its class, and it contained a disproportionate number of commuters. However, when the small sub-samples actually rated are compared against the classes from which they were derived, no significant differences from class averages in CLEV score, SAT, proportion of commuters, or academic performance, appear.

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*This test is comparable to the Scheffé test for the significance of paired differences.

A second possibility is that the difference reflects the increasing selectivity of admissions to the college over these years. The major evidence lies in the rise of average SAT for the classes as a whole (see p. 97 ). However the Admissions Committee may also have selected students of greater maturity from an array of applicants both larger and more highly preselected.

A final conjecture is of broader interest. Small as the differences are (and in a small sample), they may be expressive of certain developments in the culture. Most suggestive is the increasing introduction of relativistic thinking in the schools in general, and in particular for college-bound students through the Advanced Placement Program. In addition, the years of the study cover the general diffusion of exposure to cultural diversity through television.

## Analysis of Special Categories

To account for non-continuous growth, the rating chart contained special categories: (1) Temporizing, (2) Escape, and (3) Retreat.

The first analysis of the judges' agreement in the use of these categories was made by combining the categories to see if the judges could agree with each other when classifying the interview protocols as evidencing non-continuous growth. Since the data is nominal and dichotomous the Chi Square test for dichotomous data was used.* A separate analysis was made for each year, again using all 20 students and the ratings of the six judges. The Chi Squares were as follows:

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*The Chi Square test for dichotomous data can be found in Winer (1962), pp. 138-9.

| Year | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Chi Square | 7.0 | 13.29 | 2.59 | 10.5 |

(Chi Square = 15.1, $P < .05$ with 2, 99 NDF)

The Chi Square in this case represents a ratio of the consistency of the judges to the variability of the students. Since none of the computed Chi Squares was significant, the result indicates that the judges are consistent in rating the protocols as evidencing non-continuous growth. The degree of this consistency was not computed, but is assessable in the data for the first two years in college presented below. Table 7 indicates that virtually all of the judges agreed that none of the twenty students could be classed as in non-continuous growth in freshman year. The non-significant Chi Square, then, for this year indicates that the judges were consistent. Table 8, for the sophomore year, indicates that for twelve students there was virtual agreement (five of six or all six judges in accord) that these students were in continuous growth. Two students (#4 and #2) were rated by four or more judges in categories indicating non-continuous growth. The remaining six students were judged inconsistently. Since the observed Chi Square for the sophomore year was again not significant, the judges could be considered in the main consistent in their use of this classification scheme. We have

### TABLE 7

### JUDGES' USE OF SPECIAL CATEGORIES: FRESHMAN YEAR

(Students classed as Temporizing, Escape,
or Retreat or not: 1=No, 0=Yes)

| | Judge | | | | | | |
|---|---|---|---|---|---|---|---|
| Student | 1 | 2 | 3 | 4 | 5 | 6 | Total |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 5 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 4 | 1 | 1 | 1 | 0 | 1 | 1 | 5 |
| 5 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 6 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 7 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 8 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 9 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 10 | 1 | 1 | 1 | 0 | 1 | 1 | 5 |
| 11 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 13 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 14 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 15 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 17 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 18 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 19 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 20 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Total | 20 | 20 | 19 | 18 | 20 | 20 | |

Observed $X^2$ = 7.0 (not significant) (NDF 2.99)

## TABLE 8

## JUDGES' USE OF SPECIAL CATEGORIES: SOPHOMORE YEAR

(Students classed as Temporizing, Escape,
or Retreat or not: 1=No, 0=Yes)

| | Judge | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | |
| Student | | | | | | | Total |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 5 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 6 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 7 | 1 | 0 | 1 | 1 | 1 | 1 | 5 |
| 8 | 1 | 1 | 0 | 1 | 0 | 1 | 4 |
| 9 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 10 | 1 | 1 | 0 | 1 | 1 | 1 | 5 |
| 11 | 0 | 1 | 0 | 0 | 1 | 1 | 3 |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 13 | 1 | 0 | 1 | 0 | 1 | 1 | 4 |
| 14 | 1 | 1 | 1 | 0 | 1 | 1 | 5 |
| 15 | 1 | 0 | 0 | 0 | 1 | 1 | 3 |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 17 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 18 | 1 | 1 | 0 | 0 | 0 | 1 | 3 |
| 19 | 0 | 1 | 1 | 0 | 1 | 1 | 4 |
| 20 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Total | 16 | 16 | 13 | 12 | 16 | 20 | |

Observed $X^2 = 13.29$ (not significant) (NDF 2.99) not included the raw data tables for the junior or senior years since they would be redundant.

Since there was consistency in the use of the Temporizing, Escape, and Retreat categories taken as a whole, a separate analysis was made of each. None of the Chi Squares was significant. Thus, the judges can again be considered significantly consistent in their use of these three sub-categories both when the categories are combined into a general category of non-continuous growth and when the categories are considered separately.

## RATING OF SINGLE INTERVIEWS WITHOUT KNOWLEDGE OF YEAR IN COLLEGE

In rating the four-year sequences considered above, the judges rated the interviews from any one college year at a wide range of points on the scale (see Table 3, p. 70). This in itself would seem to obviate any possibility that the judges' knowledge of a student's year in college might account for much of their agreement. Nonetheless we decided to put the questions to a sharper test. Eight student protocols were therefore selected at random from the sophomore, junior or senior years of other students and all identifying data as to year was removed. (It did not seem feasible to disguise cues for freshman year.) We first asked the judges to guess the college year represented by each interview. Their accuracy was 32%, i.e., chance. We then asked the judges to rate these single protocols on the scheme. Five judges performed this operation. The correlation matrix is presented in Table 9.

TABLE 9

INTER-CORRELATION MATRIX

(N=5 Judges, 8 Protocols, Year Masked, 9 Pt. Scale)

| Judges | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1 | 1.00 | 0.00 | .75 | .79 | .72 |
| 2 | | 1.00 | .31 | .14 | .24 |
| 3 | | | 1.00 | .62 | .70 |
| 4 | | | | 1.00 | .68 |
| 5 | | | | | 1.00 |

This table indicates that four of the five judges were able to place the interviews on the scheme with reliability comparable to that obtained when the year was known. The rating by one judge, judge number 2, did not correlate significantly with those of any of the other four judges. The lack of agreement of judge number 2 with the others may indicate that he was simply unable to place the students without knowledge of the year or without the context of the full four-year report. However, the tape-recording of the judges' discussion as they handed in their rating is suggestive. In reading off his first rating, judge number 2 announced, "I gave myself a vacation this week," and explained that he had rated in haste and indulged in being "arbitrary." During the remainder of the session the group teased this judge by predicting, with impressive accuracy, the deviant rating judge number 2 had assigned to each interview. The predictions seemed to derive from an estimate of the judge's personal prejudices and the mood he presently avowed.

Even with this judge's ratings included, Table 9 indicates that the judges were able to place the interviews on the scheme with overall reliability, without knowledge of the year in college. However, the evidence of the judges' discussion seemed valid reason for excluding the ratings of judge No. 2 from more detailed analyses. Using only the ratings of the other four judges, we considered judges' consistency in using the special categories, Temporizing, Escape and Retreat (T, E, and Ret). These estimates of direction we felt would be difficult to make in single interviews out of their sequential context, and we predicted that the judges would be both chary of using the categories and unreliable in their use.

An examination of these categories revealed that none of the judges used the categories Escape and Retreat, and that two judges used the category Temporizing while two did not. The "consistency" implied by their rating no interviews at all in Escape or Retreat should hardly be read as reliability. However, the failure of reliable use of these special categories of direction of movement would seem attributable less to the judges' ignorance of the college year involved than to their lack of a sequential context of other interviews in which such an assessment could be made. In discussion, furthermore, the judges reported their emotional reluctance to assign a student without strong contextual evidence, to categories other than those of growth.

## RATING OF EXCERPTS

In a further exploration of the effects of context we asked the judges to rate forty excerpts (ranging from three lines to a page) selected from protocols other than those which they had already rated. These were not random selections, but items selected to be representative of a range of those passages which the judges had noted on their rating forms as providing the salient evidence upon which they relied in rating entire interviews. A major purpose in this test was to assess the integrity of communication about our scheme through the use of illustrative excerpts (as in INTRODUCTION of this report).

The judges attempted to place each of these excerpts on the Chart of Development as they had previously rated entire interviews. An analysis of variance was computed to examine the between-judge differences (using the modification previously noted). The F ratio for the judges was 0.31 (with 4 and 156 NDF) and was not significant.

The overall reliability was therefore computed in the same manner described earlier with a resultant r = .821. The estimated reliability of a single judgment (again using the modified procedures described earlier) was also derived; the r = .57.

Finally the correlation matrix was also computed to compare each judge with all other judges. Table 10 presents the results and indicates, once again, that the agreement among the ratings by judges was positive, consistent and significant.

TABLE 10

EXCERPT TEST

CORRELATION MATRIX

(N = 6 Judges, 40 Excerpts, 9 point scale)

| Judges | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | 1.00 | .49 | .45 | .38 | .44 | .57 |
| 2 | | 1.00 | .63 | .36 | .64 | .44 |
| 3 | | | 1.00 | .47 | .58 | .56 |
| 4 | | | | 1.00 | .48 | .56 |
| 5 | | | | | 1.00 | .45 |
| 6 | | | | | | 1.00 |

A further analysis indicated that the judges used the special categories of Temporize, Escape and Retreat somewhat more freely, and reliably, than in their rating of single interviews. Fifteen excerpts received such a special-category rating from one or more judges.

Of these, seven were so rated by only one judge, three by two judges, three by three judges, one by four judges, and one by five judges.

Except for the last two instances, the consensus is not impressive, but against the background of forty items the degree of consistency is sufficient to raise a paradox, in view of the fact that the amount of context was even more reduced than in the case of single interviews.

The reasons seemed to be two. 1) In rating entire interviews the judges tended to feel they were rating the student whereas in rating an excerpt they felt they were rating a statement. They were therefore more free to make negative value judgments. 2) In being pre-selected, and isolated, the excerpts were stronger as "types."

In their ratings of entire interviews the several judges had frequently referred, on their rating forms, to identical passages. In addition, this particular test revealed their consensus in the rating of such passages taken out of context. These findings suggested that the explication of the scheme could be illustrated by short excerpts and that a reader could be asked to place confidence in such an exposition without the burdensome context of the complete protocols.

## RATING OF CONDENSED REPORTS

For illustration of the development described by the scheme, a compromise between short excerpts and full-length verbatim reports would take the form of reports edited for condensation and readability. If such condensed reports could be produced in such a way as to represent a valid paraphrase of the original, they might prove dramatic and useful educational documents.

We therefore undertook to compare the judges' ratings of condensed versions of four-year reports against their ratings of the full-length originals. Four students' four-year reports were prepared for rating. A modified Latin square design was used through which each of the six judges alternately was given a long form (a complete typescript of a student's four-year report) and a short form (four-year report edited for readability and condensed to between 30 to 60% of original). The results are presented in Table 11.

Only in the freshman year were the average rated Positions of short and long forms significantly different. Judges using the long form rated freshmen at a higher point on the scheme than did the judges using the short form. There were no significant differences for the sophomore, junior or senior year between the average Positions.

## TABLE 11

### LONG FORM:SHORT FORM
### AVERAGE JUDGED POSITION
### (N = 4 Students, 6 Judges, Alternate LF:SF)

| Year | | Long Form | Short Form | t | F |
|---|---|---|---|---|---|
| 1 | $\bar{x}$ | 4.25 | 3.75 | 1.86(<.05) | |
| | $s^2$ | .39 | .47 | | n.s. |
| 2 | $\bar{x}$ | 5.33 | 4.99 | n.s. | |
| | $s^2$ | .42 | 1.35 | | 3.19(<.01) |
| 3 | $\bar{x}$ | 6.16 | 6.33 | n.s. | |
| | $s^2$ | .06 | .78 | | 12.91(<.001) |
| 4 | $\bar{x}$ | 7.17 | 7.41 | n.s. | |
| | $s^2$ | .88 | .81 | | n.s. |

However, if we examine the analysis of variance ratio data on the same table, we find that the judgments were significantly more heterogeneous for the short form in two of the four years tested. In the sophomore and junior years there was significantly more spread using the short form; that is, the between-group variance of the short vs. the long form was greater than the within-group variance. This tendency, possibly the result of the judges' having to rely on less data, did not appear in the rating of freshman and senior year. This event may be connected with the evidence in Table 1 to the effect that the sophomore and junior years are more difficult to judge, and therefore the effect of shortening the form may be more evident.

If we combine the judgments made on the long form and the short form for the same four students over the four college years, we again illustrate the high general inter-judge reliability observed in the previous instances. Table 12 indicates the inter-judge reliability combining the long and the short form ratings.

TABLE 12

COMBINED LONG FORM:SHORT FORM

OVERALL RELIABILITY

(N = 4 Students, 4 Yrs., 6 Judges)

| Judges | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | 1.00 | .97 | .92 | .90 | .86 | .83 |
| 2 |  | 1.00 | .93 | .89 | .83 | .83 |
| 3 |  |  | 1.00 | .92 | .77 | .90 |
| 4 |  |  |  | 1.00 | .74 | .83 |
| 5 |  |  |  |  | 1.00 | .74 |
| 6 |  |  |  |  |  | 1.00 |

These findings suggest that condensed, edited versions of the reports can provide veridical portrayals of the students' developments along the scheme. The tendency of editing to oversimplify the impressions of the freshman year in this set of protocols could presumably be counteracted in any editing of reports for publication.

This sub-sample contained the reports of two Radcliffe students, the only point in the judges' experiments in which women's reports appeared. Though such a sample is obviously too small for generalization, it is of some interest that the agreement of the judges about the Radcliffe protocols showed no significant variation from that of their rating of male students. Post-judgment discussion did generate among the male and female judges a heated debate about sex differences in the experience of Commitment but there was an agreement that these differences were encompassed by the general definitions of the scheme.

# CHAPTER II

# CHARACTER OF THE SAMPLES

## CHARACTER OF THE SAMPLES

When we undertook the study, our intent was to explore and portray differences in the ways students responded to the diversity and relativistic thinking confronting them in college. Since we saw our task as a kind of preliminary scouting of the most prominent aspects of the terrain, we selected our first informants with an emphasis on those students who we supposed would give us the most dramatically different accounts. These, we felt, might be on the one hand those who entered college with the most pronounced aversion to, or ignorance of, relativistic thinking, and on the other hand those who brought with them a predisposition toward, or familiarity with, such thinking. It was for this reason that we developed the Checklist of Educational Views (CLEV) and emphasized extreme scores in our call for volunteers as will be described below.

In selecting the Second Sample (Classes of '62 and '63), however, our purposes were different. We had detected throughout the varied reports of our first informants that underlying sequence of developmental steps which is the offering of this study. We had put aside our concern with contrasting personality traits, preferences and temperaments in order to focus on the developmental aspects of the students' reports.

Our question now was whether the sequence of developmental challenges we had detected would be evident, one way or another, in the reports of students generally. In our second call for volunteers, we therefore neglected CLEV scores and sent out invitations at random.

In neither case did we construct a set of academic, sociological and psychological dimensions and attempt to procure a sample that would be representative of the population in terms of that construction. However, the samples turned out, with two exceptions to be considered below, to be both similar to each other and representative of their populations on conventional criteria. For the purposes of this study, of course, there was no requirement that a sample should contain a _proportional_ representation of its population on every point on every demographic dimension. What was required was _some_ representation. Exhaustive statistical analysis therefore seemed beside the point. The most cursory examination of the sample on such matters as occupation of father, level of family income, educational background, religious affiliation, etc. convinced us that every general grouping or level was amply represented. The only characteristic absent was, of course, that orientation involved in not volunteering. On ordinary criteria those who did not volunteer were as varied as those who did. About the meaning(s) of non-volunteering we can only speculate; for the purposes of this study, however, the possibilities that the non-volunteers were somehow completely immune to the issues of development traced in our scheme seems frankly inconceivable.

The following describes the procurement and major characteristics of each sample.

THE FIRST SAMPLE (Class of 1958)

In October of 1954 and May of 1955 we administered CLEV to approximately one-third of the freshman classes of Harvard and Radcliffe in section meetings of the required course in freshman composition. In this course, one-fifth of the class had been qualified for honors sections and no other criterion used in subsequent sectioning except convenience of schedule. We selected sections, four regular to one honor, for all hours scheduled. This procedure resulted in 313 students with scores for both Fall and Spring. On the basis of these scores we invited 43 Harvard students and 12 Radcliffe students for interviews (see letter in Appendix). Of these, 27 Harvard students and 4 Radcliffe students responded. The following analyses are limited to the Harvard students.

## TABLE 13

## FIRST SAMPLE AND ADHERENCE SCORE, HARVARD STUDENTS

| Adherence Score | Invited | Responded | Completed 4 years |
|---|---|---|---|
| High extremes (both scores) | 3 | 2 | 1 |
| Mean (both scores) | 3 | 2 | 1 |
| Low extreme (both scores) | 11 | 7 | 4 |
| Change extreme (increase) | 13 | 8 | 5 |
| Change extreme (decrease) | 14 | 8 | 4 |
| Total | 44 | 27 | 15 |

Compared with their class as a whole, the represented percentiles of SAT, MAT, and weighted performance in secondary school and Predicted GPA are revealed by Table 14.

### TABLE 14

### FIRST SAMPLE RESPONDENTS AGAINST CLASS PERCENTILES FOR SECONDARY SCHOOL PERFORMANCE* AND PREDICTED RANK LIST**, HARVARD STUDENTS

| Percentile | SAT | MAT | SSP | PRL |
|---|---|---|---|---|
| 99-90 | 1 | 2 | 1 | 3 |
| 89-70 | 8 | 5 | 4 | 1 |
| 69-50 | 2 | 5 | 7 | 6 |
| 49-30 | 4 | 4 | 6 | 6 |
| 29-10 | 5 | 7 | 4 | 9 |
| 9-0 | 7 | 4 | 5 | 2 |

*As weighted for each school by Admissions Committee.

**Equivalent, for these purposes, to predicted Grade Point Average

The percentage of the sample from private and public schools was not significantly different from that of the class as a whole, though it favored public school. However the sample did contain a larger percentage of commuting students, 21% as against 11% for the class as a whole. This latter difference contributed to a difference in geographical origins, 48% of the sample deriving from Massachusetts as compared to 29% of the class as a whole. In listed occupation of father the sample revealed no significant bias compared to its population. The same held true for intended field of concentration, except for a preponderance intending social sciences, 33% as against 19%, at the expense, equally, of the natural sciences (except biology) and engineering.

The most relevant bias of the sample, then, would seem to be that of academic ability. The extremes were over-represented, a consequence of the emphasis on extreme CLEV scores (correlation of CLEV with SAT, .470), a condition in keeping with our emphasis on extreme range in student experience. That the lower extreme was over-represented, however, qualifies the significance of the judges' finding to the effect that the Second Sample, which did not suffer this bias, entered college at a Position more advanced on our scheme.

THE SECOND SAMPLE (Classes of 1962 and 1963)

Since our purpose in enrolling the Second Sample was to discover whether the developmental sequence suggested by the reports of the First Sample had relevance in the experience of students generally, we ignored CLEV scores as a criterion of selection. However, the students' CLEV scores were still of interest to us, and we therefore sent out invitations, at serial random, within samples of 308 students of '62 and 317 students of '63 who had completed CLEV in September and in May. The manner of administering CLEV in May paralleled that for the First Sample.

Invitations were sent to 50 of these freshmen from the Class of '62 and 104 from the Class of '63. A total of 109, or 71%, responded. We found no way to determine the reasons for the increase over the 56% response to our invitation in the First Sample. Various changes in student climate may have contributed, but the impression conveyed by the students in both the testing situation and in interview left us with the feeling that a major cause was the more favorable interest aroused in them by the revised format of CLEV (see pp. 106 ff.).

Of the 109, 85 were from Harvard (126 invited) and 24 from Radcliffe (28 invited). Interviewing in late May and early June of each year, resulting in 366 interviews and 67 complete four-year reports. Of the complete reports, 54 were those of Harvard students and 13 of Radcliffe students. The following analysis of the sample considers only the Harvard students.

As a whole, the Harvard Classes of '62 and '63 did not seem to differ in ways significant to our purposes, except perhaps for SAT in which the mean rose from 659 to 676. This difference, however, was small compared to that between either Class and the Class of '58 in which the mean SAT was 615. We therefore pooled the two Classes and in Table 15 have compared our sample against the normative data for the Class of '63.

## TABLE 15

## SECOND SAMPLE RESPONDENTS AGAINST CLASS OF '63 PERCENTILES FOR SAT, MAT, SECONDARY SCHOOL PERFORMANCE* AND PREDICTED RANK LIST**, HARVARD STUDENTS

| Percentile | SAT | MAT | SSP | PRL |
|---|---|---|---|---|
| 99-90 | 10 | 4 | 9 | 8 |
| 89-70 | 16 | 15 | 21 | 15 |
| 69-50 | 16 | 27 | 22 | 18 |
| 49-30 | 15 | 17 | 19 | 19 |
| 29-10 | 21 | 13 | 9 | 14 |
| 9-0 | 7 | 9 | 10 | 9 |

*Weighted for school by Admissions Committee

**Equivalent, for these purposes, to Predicted Grade Point Average

Inspection of the sample on the usual criteria of sociological status, educational background, etc. provided no suggestion that any major segment of the population sampled was unrepresented.

# CHAPTER III

# NOTES ON
# THE CHECKLIST OF EDUCATIONAL VIEWS

William G. Perry, Jr.
Norman A. Sprinthall
and
John W. Wideman

## NOTES ON THE CHECKLIST OF EDUCATIONAL VIEWS

The contract covered by this report as a whole included provision for the statistical analysis of the performance of CLEV which had been administered in revised form to freshmen of the Classes of 1962 and 1963. Since this analysis failed to reveal significant relations between these students' scores on CLEV and their academic aptitudes, choices or performance, it would suffice to report these negative findings alone.

Earlier forms of the *Checklist*, however, had shown significant and steady covariance with the aptitudes, choices and performance of students in two previous Classes, those of 1957 and 1958. It therefore is not clear that the negative findings with the Class of '63 express a simple failure of cross-validation. There is a real possibility that the marked rise and compression of scholastic aptitude in the Class of '63 produced a population in which the variable measured by CLEV was no longer a determinant of academic performance and choice. Details of the analysis make this possibility seem probable.

The *Checklist* may therefore be of interest to researchers addressing less compressed populations, and we shall include here some notes on its nature and earlier performance. Most particularly, we shall point to our alterations of the *Checklist*'s conventional forced-choice format. As we shall point out (pp. 107-115), we first undertook those changes in response to what we look upon as the legitimate protests in the academic community. In the end we found in these changes a solution to a problem internal to the measure. We shall therefore proffer our revised format on two grounds: 1) as an example of the adjustment of a forced-choice questionnaire to the values of an educational setting and 2) as a way of resolving a major technical problem inherent in all "agree-disagree" scales in which the items are characterized by some degree of ambiguity.

### Nature and Performance of CLEV, Early Forms

We undertook the construction of CLEV in 1953 for the purpose of selecting those students who in interview might report the most varied response to the diversity, complexity and relativism of a college education. The most important variable, we felt, might be the degree of their preference for black-white, right-wrong, thinking in an authority-oriented outlook as against their preference for contingent, relativistic thinking in an outlook of greater individual judgment.

Drawing upon the research of the day (esp. Adorno *et al*., 1950; Stern, 1953) we designed a Likert-type scale of 90 items focusing on attitudes toward education, teachers, parents, students and books. In it we presented, as quotations, statements about teachers, courses, and so forth and asked students to indicate how much they agreed or disagreed, for example:

"There is nothing more annoying than a question that may have two answers."

| Strongly agree | Agree | Agree more than disagree | Disagree more than agree | Disagree | Strongly disagree |
|---|---|---|---|---|---|

"The best teacher is one who stays with what the book really says instead of reading a whole lot of things between the lines."

| Strongly agree | Agree | Agree more than disagree | Disagree more than agree | Disagree | Strongly disagree |
|---|---|---|---|---|---|

We felt that students who agreed with such statements more than other students would be expressing relatively more wish for clear explicit and externally sanctioned structures of rightness, a wish expressive of the tendency we called Adherence.

Similar quotations expressive of Adherence focused on the expectation of authoritative guidance:

"A good teacher's job is to keep his students from wandering from the right track."

"Discussion groups are all very well, but they are a sheer waste of time as far as learning anything is concerned."

Others on the morals of work and reward:

"If a student has completed his assignment he should receive at least a passing grade."

Some items were of reverse direction (see below). The major score to be derived concerned a preference for dualistic, authority-oriented thought which we termed Adherence.

In the first trial in 1953 we administered the 90-item scale in October to 219 freshmen of the Class of '57 and made an intensive study in May of a few students who had scored at each extreme in Adherence--5 who scored extremely high, 8 who scored extremely low. We interviewed these student about their experience in the manner we intended to use in our general study, without knowledge of their CLEV score. The students then took the Rorschach, Thematic Apperception Test, and the Draw-a-Person Test. Then, in a series of conferences, a staff of six psychologists reviewed the data from interviews and clinical tests and came to consensus in predicting which extreme of CLEV score the student represented. That these predictions were accurate in every case suggested that the Checklist would be useful for our study.

In a further examination of thirty-seven students from each of the extremes, we found a marked difference in the groups on other variables. The low A's (Adherence score) showed a verbal aptitude (SAT) higher than their mathematical (MAT) with the inverse true for the high A's. The low A's characteristically derived from a middle European background, attended public school, planned a professional career, and made honor grades their freshman year. The high A's characteristically derived from a northern European background, planned a "trade" career rather than a professional one, had verbal aptitudes below the mean for their class, and did not obtain honor grades in their freshman year.*

After making an item analysis of this trial run of 90 items, we made a Checklist of 46 items, using the same format, and in the Fall of 1954 administered this shortened edition to 547 entering freshmen of the Class of 1958. Factor analysis revealed three factors accounting for 33% of the trace. One major factor contained almost all of the items on the scale (33 of the 46 statements). Table 16 presents a summary of the most significant items in this factor.

The reliability of the test was checked both for concurrent (split-half) and reliability over time (test-retest). A sample of 313 students re-took the CLEV in the Spring of their freshman year. The reliability coefficients were significant for both internal consistency, r(Fall) = +.658, r(Spring) = +.731; and for consistency over time, r(Fall to Spring) = +.797.

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*Findings by Dr. Charles C. McArthur.

TABLE 16

CLEV (1954 edition)

Factor Loadings and Items

| | | Factor I |
|---|---|---|
| Loading | Item Number | Item |
| .70 | (21) | If professors would stick more to the facts and do less theorizing one could get more out of college. |
| .59 | (10) | College professors should remember more often that men of action are more important in a society than intellectuals and artists. |
| .58 | (42) | Educators should know by now which is the best method, lectures or small discussion groups. |
| .57 | (26) | Students sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down. |
| .57 | (29) | Putting a non-conformist in a position where he can influence students is no good. |
| .57 | ( 6) | There is nothing more annoying than a question that may have two answers. |
| .56 | (24) | It's a waste of time to work on problems which have no possibility of coming out with a clear-cut and unambiguous answer. |
| .54 | (43) | It is a pretty callous student who feels anything but love and gratitude towards his parents. |
| .51 | (41) | There is no point in having visiting European professors if they won't learn to speak English well. |
| .47 | (17) | The best thing about science courses is that most problems have only one right answer. |
| .45 | ( 9) | The most immoral thing about the lazy student is that he is letting his parents down. |

CONTINUED

TABLE 16--Continued

| Factor I | | |
|---|---|---|
| Loading | | Item |
| .45 | (14) | It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes. |
| .43 | (15) | It helps the child in the long run if he is made to conform to his parents ideas. |
| .43 | (20) | Any student who needs psychological counseling should not come to college. |
| .38 | ( 3) | It is only right to think of one's own college as better than any other. |

The reliability of Factor I was also examined by rank ordering the statements by factor loading from the Fall and correlating this ranking with a similar rank ordering of factor loadings from the Spring test. The rank order correlation was +.927 specifically indicating the stability of the major factor throughout the freshman year.*

Having determined the Checklist's reliability and the stability of the major factor of Adherence, we explored the relation of Adherence score to academic variables by examining the choices and performance of students' scoring above and below the mean. The high Adherent group tended to concentrate in natural sciences with the low Adherent group concentrating in humanities ($X^2 = 27.33$, $p < .01$). The high Adherent group tended not to achieve academically at as high a level as the low Adherent group ($X^2 = 52.97$, $p < .01$). The high Adherent group also tended to select military science courses significantly more frequently than the low group ($X^2 = 13.20$, $p < .05$). The high group also contained a greater proportion of students who were forced to withdraw from college because of academic difficulty ($X^2 = 14.39$, $p < .02$). From these results a pattern emerged of relationships between A-score, choice and performance in college consistent with the earlier findings.

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*The computational analysis was performed by Paul Lohnes and Arthur Couch.

At the same time we noted the substantial correlation between A-score and SAT score of -.47. Analysis of multiple correlations revealed that A-score, when combined with SAT in the prediction of performance, contributed the small increment of .147 usual to such a measure. In keeping with the covariance of SAT and A-score we found in addition a significant relationship between A-score and reading ability ($X^2 = 17.60$, $p < .01$).

A breakdown of the sample into three levels of SAT score (low = 550 and below, middle = 551 to 640, high = 641 and above) revealed that the significant relation of A-score and choice was limited to the middle group. Most significant for the relevance of CLEV to future classes of high and compressed SAT score was the discovery that the overall contribution of A-score to the prediction of performance ($r = .147$) by SAT combined with A-score was attributable almost entirely to its function in the lowest quartile of SAT ($r = .274$), disappearing almost entirely in the upper quartile ($r = .032$).

## Revision of Format

In the setting of our study as a whole we felt that CLEV had assisted us in our effort to explore extremes of experience in our interviewing of the First Sample (Class of 1958). Furthermore the student's consideration of his CLEV responses at the end of his freshman interview had proved very productive. For this latter reason alone, we decided to administer CLEV to the Classes of '62 and '63 from which our Second Sample would be drawn, even though we were to invite a random sample rather than one emphasizing extremes or radical change of A-score.

Since we required no comparability of CLEV scores between the two samples, we endeavored to improve the Checklist and its scoring through the usual statistical procedures and through study of the considerable current literature pertaining to such measures. Since many of the methods we used have themselves been further refined by other researchers since that time, we need not detail them here. What we consider to be of relevance to the design of such measures even now are the radical modifications we made in format.

The need for revision was brought to our attention by our friends on the faculty and administration in the college. In view of present controversy in regard to the form and content of tests used in research, especially in educational settings, we feel that the special nature of the objections brought against CLEV may be of interest to other researchers.

The objection came from members of the faculty and administration responsible for our operations and supportive of our general undertaking in this study. They pointed out that most of the statements on CLEV, to which we asked students to agree or disagree, were highly ambiguous, and they properly supposed that this ambiguity was intentional. They supposed, for example, that such a statement as "A good adviser's job is to keep the student on the right track" was designed to elicit a response to overall emotional tone, a tone which we wished to suggest rather than make baldly explicit. As it stands, then, without a context or qualification of the meaning of "job," "keep" or "right track" the statement is denotatively vague or even vacuous. This is just the kind of proposition, our faculty colleagues pointed out, that they were engaged in teaching students not to make themselves and furthermore to recognize, when made by others, as providing an inadequate base for rational commitment, for or against. Disclaiming any expertise in the making of psychological tests, our critics conceded with care, though not without irony, that if we were perceived by the students strictly as "independent social scientists," this kind of questionnaire might be less objectionable educationally. They felt, however, that since the students properly perceived us as responsible representatives of the college, we were in an awkward position from which to ask students to participate seriously in an intellectual activity so contrary to the values of a liberal education--the very values which we professed to be studying.

We felt the point to be well taken. That the measure seemed to "work" did not justify a confusion of means and ends. As often happens to the makers of tests of personality we were measuring the negative, and that after having asked our subjects to subscribe to the frame of mind most generative of it. That is, however worthwhile measuring negatives in personality may be, the form of the majority of items on our Checklist provided for no truly positive transcendent response.

For example, to the ambiguous statement about the "good adviser" quoted above, the form of the scale allows two classes of response: agreement and disagreement. If the respondent "agrees," he does so presumably in response to the tone suggesting the desirability of clear firm guidance by authority and is presumed to find the statement meaningful. If he disagrees, he is presumed to do so in response to the same tonally implied message, and is again presumed to accept the statement as meaningful. In the case of disagreement, of course, it is not clear whether the respondent may be expressing a positive personality trait (e.g. reasonable degree of independence) or a negative (e.g. a compulsive antagonism to authority), but for some purposes this confusion might not be serious.

There is, however, a third class of response for which the form of the scale makes no provision. This is of the kind "The statement is ambiguous" or "What do you mean?" or "It depends on the circumstances and on what is meant by 'keep' and 'right track.'" This response could be the most unequivocal and congruent expression of positive, transcendent personal function, and quite a different matter from an evasive checking of "no opinion" which forced-choice questionnaires preclude in order to preclude equivocation.

Supposing that a respondent wishes to express himself in this positive way to such an item which is set in the conventional forced-choice form, his only recourse is to check "disagree." This is not what he means, and furthermore it demands that he appear to accept as meaningful that which he does not so accept. We need not enlarge on the ethical implications; they are too obvious and too extensive.

Within the purely technical purposes of our own study (as we suppose in many other studies) the consequence of this limitation of response was to confound most of those distinctions most important to us. While we could hardly ask of such an instrument that it make the more elaborate distinctions among the forms of our students' thought which we were examining in the interviews, we were asking it to distinguish the students' tendencies toward a dualistic outlook and toward a contingent, relativistic outlook. Even this it was failing to do with real power. An "agree" response to a dualistic, authority-dependent item might be confusing enough to interpret in view of such variables as response set, tendency toward yea-saying, etc., but these seemed to us expressions of the same outlook. It was the "disagree" response which failed to distinguish dualistic Opposition from genuine contingent thinking.*

In the light of these considerations, the faculty's objections could hardly be dismissed as "resistance" to educational research. The fact that the measure worked at all appeared astonishing, and even a little sad. Perhaps the most alarming aspect of the experience was the docility of the students. We wondered if constant testing, combined with the presumption of respectability that halos anything called "research," had jaded their capacity for indignation. We came to admire the Radcliffe freshman, alone among six hundred "volunteers," who had risen from her seat--at what personal cost we can only guess--to throw her test in the wastebasket and walk from the hall.

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*We had included some dualistic absolute statements anti-authority, hoping these would identify the Oppositional student, but they did not pull well, and did not relieve the dilemma of the contingent thinker. We could find only one or two statements of positive, contingent thinking which would discriminate (see below).

We supposed there might have been many students, too, who admired her, in secret and perhaps in shame, and it seemed possible that most of the students who later failed to respond to our invitation for interviews might have been among them. The cumulative losses seemed beyond tolerance. We were ready to pay a high price in the labor of scoring could we find a solution to both the ethical and technical problems. The alternative was to abandon the Checklist.

The solution we found for the ethical problem was a simple if radical change in format. First we emphasized in the directions the character of the items as "statements people have made about education," and reminded the students of this context throughout the Checklist by prefacing each item with the word Statement, with the statement in quotes. More importantly, we abandoned the forced-choice form by inserting a "can't say" position in the center of the agree-disagree scale. And most importantly, as it turned out, we followed each item with four blank lines on which we invited the students to write comments. Taken together, these provisions satisfied us and our faculty colleagues on ethical grounds, and the last one, in particular, appeared to lift the students' reaction to the test from passive docility to zestful interest.

It was only when we surveyed the students' comments that we realized how much they might provide a solution to the technical problem as well. Their richness revealed how many distinctions--and outright reversals of meaning--the simple agree-disagree scale had obscured.

Comments on an item which factor-analysis had identified as one of the strongest will serve as illustration. The item read: "There's nothing more annoying than a question that may have two answers." The following are comments by students who had checked "strongly disagree," and suggest the range of style of comment congruent with the check:

(a) "How about one with three answers?"
(b) "Yang and Yin are still fighting this one out."
(c) "Only if the teacher thinks one of them is right."
(d) "It depends on what the question is about."
(e) "It depends on what is meant by 'answer'."
(f) "No! This question is much more annoying. It's senseless."

Quite aside from the strong portrayal of individual styles conveyed by students whose comments were consistently of any one of these types, some students' comments signaled the error which would be involved in scoring by the check in the agree-disagree scale alone. For example, the following incongruous comment was made by a student who also checked "strongly disagree" to the above item: "Exactly, that's why I like physics - one answer." The majority of this student's other responses and comments suggested that he might have meant to check "strongly agree"; however, he had made two other "errors" of this kind in twenty items. He remarked later, in interview, that his feelings were indeed mixed. "Yeah, I do like to have things clear and definite, and I wish everything was that way, but somehow I guess I think that's kind of immature, somehow."

An extreme of error is exemplified by the instance of another student who checked "disagree" on the same item and commented: "No question has two answers." During his freshman interview he discussed his reasons for changing his response to "agree" during the spring administration of the CLEV:

> I. [reading] "There's nothing more annoying than a question that may have two answers." And in the fall here you disagreed with that and in the spring you agreed. You tend to agree a bit more.
>
> S. Well, at first in the fall I disagreed because, uh, I absolutely couldn't see why there should, why there should be something with two answers. But as I went along I found out that that's just the way it was. That-ah, I mean it, it made for more, uh, more interesting topics, in other words, to have-uh, two different sides to the story--
>
> I. I see. So that-uh...
>
> S. I mean at first I says, "Well, why should there, why should there be anything with two answers?" Now I...
>
> I. So you just disagreed with this statement /Yeah/ because there wasn't probably anything that did have two answers...?
>
> S. Right. Then I found out that there were things that had two answers (I. laughs) and, and it wasn't so bad after all. It was very interesting. But at first it was annoying! It was annoying like just a month ago--I guess that's why I checked "agree" here in the spring.

In this instance, conventional scoring would have reversed his meaning in the fall and the direction of his movement from fall to spring. In the fall, his "disagree" reflected not a contingent outlook but an extreme of dualistic absolutism, so naive that it lay outside the range presumed by the scale. We found two students for whom the Checklist was in this identical error, and many more for whom the general error of reverse-scoring appeared in other items.

One item (one of the two deliberately "reverse-direction" items on the measure) was intended to tap a preference for contingent, relativistic thinking.

It had "pulled," but only fairly well, in the Checklist's original form. It read, rather floridly, "The meaningful and dramatic experience in education lies not so much in contrasting right and wrong or black and white, but in discovering the colorful and vital differences in what previously seemed mere shades of grey." In the Checklist's new format, the comments revealed where the item had been losing its strength and again provided a means for correction. The following comments, for example, are all made by students who had checked the right-hand side of the scale, from "can't say" to "disagree." Contrary to the scoring of the check marks alone, they identify the contingent thinker at work:

> "A pretty figure of speech. Does it mean anything?"
>
> "Why 'mere' shades of grey?"
>
> "What are we talking about, education or sin?"
>
> "I like shades of grey."
>
> "I've never seen black nor have I seen pure white. Sounds like some moral heart-bleeding liberal."
>
> [and most succinctly] "Huh?"

In independent scoring, five scorers sorting each item in a sample of 50 questionnaires agreed in placing 85% of the items (agree-disagree scale and comments taken together) into one of four categories: Dualistic Adherence, Dualistic Opposition, Contingent thinking, Rejection. We derived the impression that the resulting scores would prove far more reliable than those of the agree-disagree scale alone. A small sample item and factor analysis supported this impression by indicating higher split-half and test-retest reliability and a more concentrated loading of the Adherence factor. We decided, however, against an extended endeavor to document our impression. The task exceeded the function now served by CLEV in the study as a whole, and the data given below, based on the scoring of the agree-disagree scale alone, suggested that the question would have to be investigated in a population less compressed in academic ability.

## Performance of CLEV, Revised Form, Sample of 1963

From the 312 students of the Class of '63 who had filled out the revised form of CLEV in the fall and spring of their freshman year (1959), we selected a sample of 60 (every 20th name) and considered their fall scores alone (agree-disagree scale only). We submitted these scores to a principal components factor analysis procedure using the largest row element in the diagonals.* One major factor emerged from the analysis accounting for 34.5% of the trace. An examination of the factor loadings revealed that seven of the twenty items formed the most significant cluster. Table 17 presents the loadings on the major factor for these items. The content of the questions suggests that the concept of "Adherence" as used in the study remains a major dimension. A comparison with the earlier versions of CLEV also indicates that the single major factor from the most recent analysis accounted for more of the trace than all three factors in the earlier study. Also an examination of mean scores for each item loaded for this factor indicates that on the average the students in this sample tend

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*The procedures for the factor analysis are outlined in Cooley and Lohnes, 1962. The MSA techniques developed by Jones, 1964, were used for the actual programming.

TABLE 17

CHECKLIST OF EDUCATIONAL VIEWS 1959

FACTOR LOADINGS BY QUESTION

| Item Number | Factor I Loading | Item |
|---|---|---|
| 16 | +.609 | "In the final analysis the student who skips reading is throwing away his parents' money." |
| 18 | +.598 | "The inspiring teacher puts across to his students things as they really are." |
| 17 | +.489 | "We all have a tendency to make judgments which are too simple and final: we hope to learn through education to make judgments more complex and tentative." (reverse score) |
| 15 | +.473 | "Students must first master what is already known before they are told to exercise their own judgment." |
| 12 | +.464 | "A good teacher's job is to keep his students from wandering from the right track." |
| 11 | +.349 | "For most questions there is only one right answer once a person is able to get all the facts." |
| 14 | +.325 | "There is nothing more annoying than a question which may have two answers." |

to disagree with Adherent concepts. For example, the students tended to check "disagree" on the item stating that a student who skips assigned reading is throwing his parents' money away. On the "comment" to this item the students tended to remark that it was their own future which was the predominant concern. On item 12--"A good teacher's job is to keep his students from wandering from the right track"--the students also tended to check "disagree" consistently and to make such comments as: "It's the student's job" and "Whose right track?" Similarly, most students tended to check the "disagree" side of the scale for all items that make up the factor, with the exception of item 17--"We all have a tendency to make judgments which are too simple and final: we can hope to learn through education to make our judgments more complex and tentative." On this item the majority of students checked the "agree" side of the scale, adding such comments as "Yes, but you still have to make them, tentative or not." These discriminations by the majority suggested that "response set" had not significantly affected their answers.

We then compared the Adherence scores of this sample of 60 freshmen of the Class of '63 to other academic variables. A factor score was computed for each student.. This score represented a method of combining all responses by a student weighted in accord with the factor loadings for each question. The distribution of factor scores was then normalized for the sixty students in the sample. The relationship of A-score to other variables such as SAT score, Predicted Rank List, Grade Point Average was then examined. The correlations in general were not significant (SAT -.077, PRL -.268, GPA [Fall] -.156, GPA [Spring] -.053). Since A-score no longer showed a significant overall relation to these variables, we examined the relationships in the upper and lower quartiles of A-score in the sample. Here the previous trends did appear to at least a significant degree in the average SAT, predicted grades and attained grades of the two groups. There was no difference between the upper and lower quartiles of A-score in public vs. private school preparation.

The meagerness of the findings was in keeping with the expectations we derived from the analysis of the function of CLEV in the sample of the Class of '58. The covariance of A-score with academic choice and performance had then been limited to the lower levels of SAT (see above, p. 106). Meanwhile the average SAT of entering freshmen had risen from 615 to 676 and the lower quartile from 547 to 610. In admitting students in the lower quartile of SAT, moreover, the Committee on Admissions had put increasing weight on assessing the probable source of a student's academic and extracurricular achievements. Most particularly the Committee had searched for evidence that might suggest, in however rough a way, whether the achievements of these students were the product of an imaginative determination or a compulsive desperation (personal communication). To judge from our clinical work, the Committee's success had been considerable.

We presumed, then, that the level of intellectual function of the Class of '63 enabled students high in Adherence to transcend the negative effects of the tendency. An accidental finding, however, suggested a more radical interpretation: that these students, in the development traced in our scheme, transformed the function of Adherence into a stylistic quality of their commitments where it might function as a positive strength.

The finding on which we stumbled was as follows. To obtain for us a sample of CLEV scores from seniors in the Class of '63, Dr. Stanley King included the measure in a battery of tests scheduled in a larger research project, under his charge: The Harvard Student Study. In this larger project the sample consisted of 250 students who had volunteered as freshmen for an extensive testing in each of their four years. Sixty of these overlapped with the sample to which we had administered CLEV in the fall and spring of their freshman year. Pressed for time, we took the CLEV scores of the first twenty of these seniors to appear for retesting in Dr. King's study. The salient finding was that these students had scored, on the average, significantly above the mean in Adherence in their freshman year. Their grades were indistinguishable from seniors comparable on all other criteria. What did distinguish them was that they represented those students in Dr. King's sample who responded most promptly to his invitation for their final work in his study and who also kept their appointments.

# CONCLUSION

## CONCLUSION

The judges' experiments validate our developmental scheme in that they certify its existence as a reliably discernable theme common to the students' reports sampled. This is not to say that other themes would not be discernable in the reports nor that the particular scheme which we abstracted might not be improved in its articulation. It leaves open, too, the question as to whether the scheme would be consistently discernable in the reports of students in other colleges or in other times. Within these strict limits the study makes two contributions, one a demonstration of feasibility and one a verification of substance.

Feasibility: The findings demonstrate the feasibility of assessing developments in the epistemological and axiological outlook of intelligent persons in late adolescence.

Substance: The findings validate one particular scheme of such development as a common theme in the sample of student reports from which it was abstracted. This scheme, as outlined in the Summary, extends into stages of personal Commitment as an activity of orientation in a relativistic world.

Within the confines of research itself these findings of feasibility and substance contribute to the articulation of a relatively unexplored span of human development.

To go beyond these statements and to consider the relevance of our particular scheme to the conduct of education is to make presumptions about the scheme's general validity which are not yet demonstrated by experiment. If such presumptions are granted, even tentatively, the substance of the scheme would seem to bear relevantly on broad aspects of education such as selection, guidance, curriculum and instruction. Speculation about these relevancies is properly beyond the scope of this report (see Perry, _op_. _cit_.) but we wish to remark on one pervasive consideration.

The scheme reveals that each step of development confronts the student with challenge. Two of these steps may be reasonably called points of crisis. The first occurs in the transition from dualistic to relativistic assumptions at Positions 4 and 5, the second in the undertaking of Commitments between Positions 5 and 7. While the first of these might seem to be primarily an intellectual matter, and the second primarily volitional, they share in common the demand they make upon the student's courage. The first demands that the student relinquish old assumptions about truth, about certainty and about the guidelines of moral conduct in exchange for new and problematical assumptions based on self-limited contextual and procedural criteria. The second requires the student to embrace major personal responsibilities and risks in this newly perceived world.

In each instance the student has the option of that entrenchment in reaction which we have termed Retreat or of that drifting into denial of responsibility which we have termed Escape (as distinct from responsible dissent). The educator cannot determine the student's choice; his problem must be to provide the context in which the probability of a favorable decision receives maximal support.

We have therefore searched our records for those conditions from which the students seemed to draw the nourishment of their courage. The inference we derive is that the students drew this nourishment most productively from a sense of community of a kind which included not only their peers but their instructors as well.

The provision of this sense of community would seem to require modes of instruction and forms of teacher-student relations quite different from those which were appropriate sixty years ago. At the turn of the century the epistemological assumptions of the university were themselves more in keeping with the right-wrong assumptions characterizing Positions 1-4 in our scheme (see Perry, op. cit.). Community could then be found with peers in action and reaction to an Authority whose primary function was expository and evaluative. Today authority itself requires the student to go beyond such a defined world to confront the loneliness of affirming his own meanings and decisions in a world devoid of certainty. It is not really paradoxical to say that at this advanced point in his development the student may need not less support but more.

The sense of community from which the students seemed to draw support seems to involve more than their vision of certain members of the faculty as models for emulation. It involved the experience of being seen by such models as being "in the same boat" with them. It was this social confirmation which made the very loneliness involved in Commitment a shared bond of community and a rite of membership among mature men.

The arts of communicating this confirmation are perhaps intuitive in the humane teacher. Educational forms and daily customs, however, seem to us not to have changed as rapidly as the epistemology of the curriculum. The expositional and evaluative functions of instructors now require balance by extension and emphasis of those functions which recognize and confirm the student's endeavors to make meaning and his courage in committing himself in the midst of many possible meanings.

The very nature of our scheme itself makes clear (if there was ever any doubt about the matter) that this social confirmation of the student is not something merely additive to, or vaguely related to, his intellectual function. It is not something like building character (or dealing with personal or emotional problems) somehow "tacked on" to the instructor's central responsibility of providing substantive intellectual training. In the modern epistemology the learner is inextricably entwined in his learning, the knower in his knowledge. "Knowing" something now involves in itself an act of personal commitment (Polanyi, 1958). From its own particular conceptual frame, the scheme we present articulates the evolution of this intertwining of the learner and the learned.

# REFERENCES

# REFERENCES

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# APPENDIX

# APPENDIX

The invitation asking students to volunteer ran as follows for the First Sample:

> Dear Mr. ______
>
> You will remember having helped us by filling out our "Checklist of Educational Views"* in September and again in May. We are much in need of your help again and hope that out of an interest in education here you will feel it worthwhile to assist.
>
> Now that the year is almost over, we would like to talk with a number of students about their experience at college. We feel that students with different views about education may experience their years in college in very different ways and that it is vital to know about the different paths of this experience. We are writing to you because we feel that you can contribute to this understanding. Would you come to the Bureau to talk with us?

(There followed a paragraph about making an appointment.)

---

*The Second Sample has filled out CLEV as simply one part of a quite unconventional test of reading skill (Harvard University Reading Test, Bureau of Study Counsel, unpublished) taken by all freshmen in September. The invitations to the Second Sample read accordingly.

# GLOSSARY

The following glossary is reproduced from the *Judge's Manual*. It provides a reference for certain terms appearing in the text, and on the chart, to which a particular meaning is assigned.

**Absolute**

The established Order; The Truth, conceived to be the creation and possession of the Deity, or simply to exist, as in a Platonic world of its own; The Ultimate Criterion, in respect to which all propositions and acts are either right or wrong.

**Accommodation**

The modification or reorganization of a structure in response to incongruities produced by assimilations.

**Adherence** Chart code: A (contrast Opposition)

1.) Alignment of self with Authority in a Dualistic structuring of the world; or

2.) In parentheses: (A), a "conservative" preference in a relativistic structuring of the world.

**Assimilation** Chart code: parentheses ( )

The connection of a new percept to an extant structure. This may require various degrees of subordination of the implications of the new percept to the demands of an extant structure, and/or various degrees of accommodation of the structure.

On the chart, the quantity within the parentheses is to be read as assimilated to the structure preceding the parenthesis; for example, 4A(M) reads "Multiplicity assimilated to Adherence in structure of position 4."

**Authority** (upper-case A)

The possessors of the right answers in the Absolute, or the mediators of same (as viewed in Adherence); or the false or unfair pretenders to the right answers in the Absolute (as viewed in Opposition).

**authority** (lower-case a)

An aspect of social organization and interaction in a relative world, with many differentiations (e.g., power, expertise, etc.).

**Commitment** Chart code: C

An affirmation of personal values or choice in Relativism. A conscious act or realization of identity and responsibility. A process of orientation of self in a relative world.

The word Commitment (capital C) is reserved for this integrative, affirmative function, as distinct from 1) commitment to an unquestioned or unexamined belief, plan, or value, or 2) commitment to negativistic alienation or dissociation.

**defensive** (adjective descriptive of Adherence or Opposition) Chart code: Ad or Od

Adherence or Opposition functioning in internal structures of emotional control so as to produce high resistance to qualification, ambiguity or change.

**Dualism or Duality** (upper-case D)

A bifurcated structuring of the world between Good and Bad, Right and Wrong, We and Others.

Complex Dualism - a Dualism in which one element is itself dualistically structured.

**dualism or duality** (lower-case d)

Any binary function in a relative world, e.g., the right/wrong quality of a proposition in a specified context.

**Escape**

The denial of the implications for growth in Positions 4 and 5 by Dissociation or Encapsulation in the structure of these Positions.

**Dissociation** Chart code: D

Sustained opportunistic denial of responsibilities implied for the self in Multiplicity or Relativism.

**Encapsulation** Chart code: E

Consolidated assimilation of Multiplicity or Relativism to a Dualistic structure, projecting responsibility on Authority.

**Growth**

Progression from one structure to a higher structure as defined in the scheme.

**Multiplicity** Chart code: M

A plurality of "answers", points of view, or evaluations, with reference to similar topics or problems. This plurality is perceived as an aggregate of discretes without internal structure or external relation, in the sense, "Anyone has a right to his own opinion," with the implication that no judgments among opinions can be made. (compare Relativism)

**Opposition** Chart code: O (contrast Adherence)

1.) Alignment vs. Authority in a Dualistic structuring of the world; or

2.) In parentheses: (C), a preference for change and experimentation, as opposed to conservatism, in a relativistic structuring of the world.

**Position** ( 1 to 9 etc. on the chart)

That structure representing the mode, or central tendency, among the forms through which an individual construes the world of knowledge and values at a given time in his life.

**Relativism** Chart code: R

A plurality of points of view, interpretations, frames of reference, value systems and contingencies in which the structural properties of contexts and forms allow of various sorts of analysis, comparison and evaluation in Multiplicity.

**Retreat**

An active rejection of the implications for Growth by entrenchment in a defensive variant of Position 2 or 3.

**Structure**

The relational properties of a world view, with special reference to the forms in which the nature of knowledge and value are construed.

**Temporizing**

A suspension of Growth (for a year) without recourse to the structurings of Escape.

# GROWTH

**COMMITMENT IN RELATIVI**

**RELATIVISM**

**COMPLEX DUALISM**

**SIMPLE DUALISM**

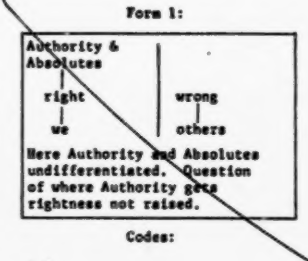
## POSITION 1

### BASIC DUALITY

EMBEDDEDNESS

Assumption of dualistic structure of world taken for granted, unexamined. Right vs. wrong, we vs. other, good vs. bad, what They want vs. what They don't want. All problems soluble by Adherence: obedience, conformity to the right and what They want. Will power and work should bring congruence of action and reward. Multiplicity not perceived. Self defined primarily by membership in the right and traditional.

Form 1:


Authority &
Absolutes
right
we
wrong
others

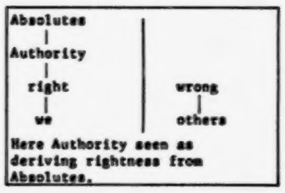
Here Authority and Absolutes undifferentiated. Question of where Authority gets rightness not raised.

Codes:

$1\ A_1$

$1\ Ad_1$

Form 2:


Absolutes
Authority
right
we
wrong
others

Here Authority seen as deriving rightness from Absolutes.

Codes:

$1\ A_2$

$1\ Ad_2$

## POSITION 2

### MULTIPLICITY PRE-LEGITIMATE

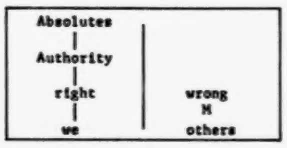
Multiplicity perceived, but only as alien or unreal. As alien it assimilates easily to error and otherness: "Others are wrong and confused (M)." Assimilated to Authority, it leads to Opposition: "I am right; They (Authority) are needlessly confused (M)."

As unreal, M is a mere appearance, e.g.: "They want us to work on these things (M) to learn how to find the answer." Here Opposition sees Authority not as wrong but simply as failing in its mediational role.

In either case M is perceived but not as a signal of legitimate, epistemological uncertainty.

Alien

In A:

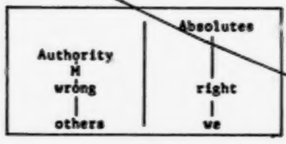

Absolutes
Authority
right
we
wrong
M
others

Codes:

2 A ⟶ M

2 Ad ⟶ M

In O:

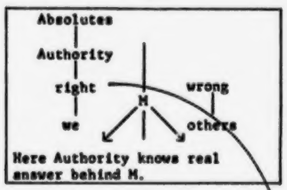

Authority
M
wrong
others
Absolutes
right
we

Codes:

2 O ⟶ M

2 Od ⟶ M

Unreal


Absolutes
Authority
right
we
M
wrong
others

Here Authority knows real answer behind M.

Codes:

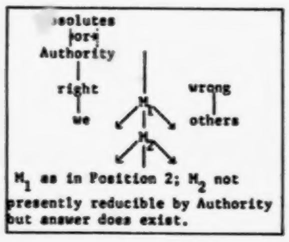
| | |
|---|---|
| 2 A(M) | 2 O(M) |
| 2 Ad(M) | 2 Od(M) |

## POSITION 3

### MULTIPLICITY SUBORDINATE

Multiplicity perceived with some of its implications. Authority may not have the answers yet on some of it, perhaps because the relevant Absolutes are not yet in view. But trust in Authority, at least in the ideal, is not threatened. Exercises in M may be enjoyed (A) or disliked (Ad); Authority is presumed to evaluate them on skill of presentation (not on structural properties). Ad may fear they are judged on glibness, influence, or pull.
Opposition here: "They judge all wrong." Self defined over against Authority and in similar structural terms.

In A:


Absolutes
or
Authority
right
we
$M_1$
$M_2$
wrong
others

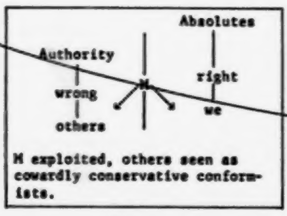
$M_1$ as in Position 2; $M_2$ not presently reducible by Authority but answer does exist.

Codes:

3 A(M)

3 Ad(M)

In O:


Authority
wrong
others
M
Absolutes
right
we

M exploited, others seen as cowardly conservative conformists.

Codes:

3 O(M)

3 Od(M)

## POSITION 4

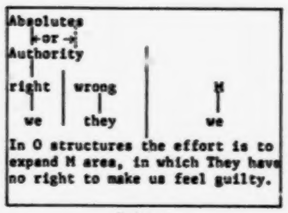
### MULTIPLICITY CORRELATE; OR RELATIVISM SUBORDINATE

Duality restructured in complex terms: right-wrong vs. M. Absolutes may be doubted in M area or considered so inaccessible as to be impossible to bring to bear on human affairs in any reasonably foreseeable future. In M, therefore, "anyone has a right to his own opinions." M is acknowledged as relevant to self, by being confusing, liberating, intriguing etc.

or

Relativism perceived in M and assimilated to Authority: A(R). That is: Authority can make judgments in M on discernible relations of propositions to each other (coherence) or to data (congruence). However this is still "how they want us to think," rather than a consequence of the nature of all knowledge.

Multiplicity Correlate:

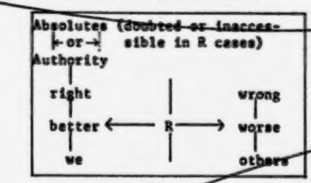

Absolutes
← or →
Authority
right
we
wrong
they
M
we

In O structures the effort is to expand M area, in which They have no right to make us feel guilty.

Codes:

| | |
|---|---|
| 4 A - M | |
| 4 A ⟶ M | 4 O - M |
| 4 Ad ⟶ M | 4 Od - M |

Relativism Subordinated:


Absolutes (doubted or inaccessible in R cases)
← or →
Authority
right
better
we
R
wrong
worse
others

Codes:

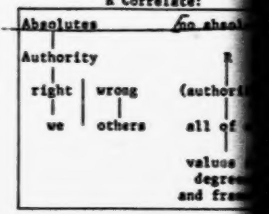
| | |
|---|---|
| 4 A(R) | 4 O(R) |
| 4 Ad(R) | 4 Od(R) |

## POSITION 5

### RELATIVISM CORRELATE, COMPETING, OR DIFFUSE

Relativism perceived as way perceiving, analyzi and ating, not because "They to think this way," but in sically. Authority perceiv authority in R. In R Corr world divided into those where Authority has the an (e.g. physics or morals) those in which R must be u (e.g. English papers). In peting, R perceived as appl to whole world (with binary swers a sub-class), but th view alternates with a pre one. In R Diffuse, the mo developed of these structu is accepted generally but implications for commitmen

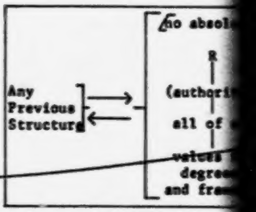
R Correlate:


Absolutes
Authority
right
we
wrong
others
no absol
R
(authori
all of
values
degree
and fra

Codes:

| | |
|---|---|
| 5 A - R | 5 O - |
| 5 Ad ⟶ R | 5 Od |

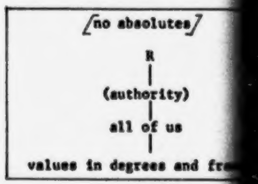
R Competing:


Any
Previous
Structure
no absol
R
(authori
all of
values
degree
and fra

Codes:

[Previous] ⇄ R

R Diffuse:


[no absolutes]
R
(authority)
all of us
values in degrees and fr

Codes:

5 R(A), 5 R(O), 5 R

[A and O become conservative
progressive styles in R fr

## TEMPORIZING

A prolonged pause (full year) within any of the above Positions, without evidence of entrenchment through structures of Escape. Code by addi

## RETREAT

Active Denial of Potential
of Legitimacy in Otherness

| | |
|---|---|
| $2\ Ad(A)_1$ | "Reaction" High anxiety, complaint, resentment vs. M. |
| $2\ Ad(A)_2$ | "Dedicated Reactionary" Rightness, hate of Otherness, no overt anxiety. Has all answers for M. |
| $2\ Od(A)_1$ | "Negativism" Passive resistance vs. Authority, but no "cause" of one's own. |
| $2\ Od(A)_2$ | "Dogmatic Rebel" Identity in "cause" without contingent judgment. "Cause" determined by whatever Authority does to be against. |

## ESCAPE

A settling for positions 4, 5, or 6 by denying or rejecting

Multiplicity

Encapsulation of M (Identity limited):

Ad(M)E Loose "tolerance" of M for Others so long as it serves A purposes or doesn't upset own A structures.

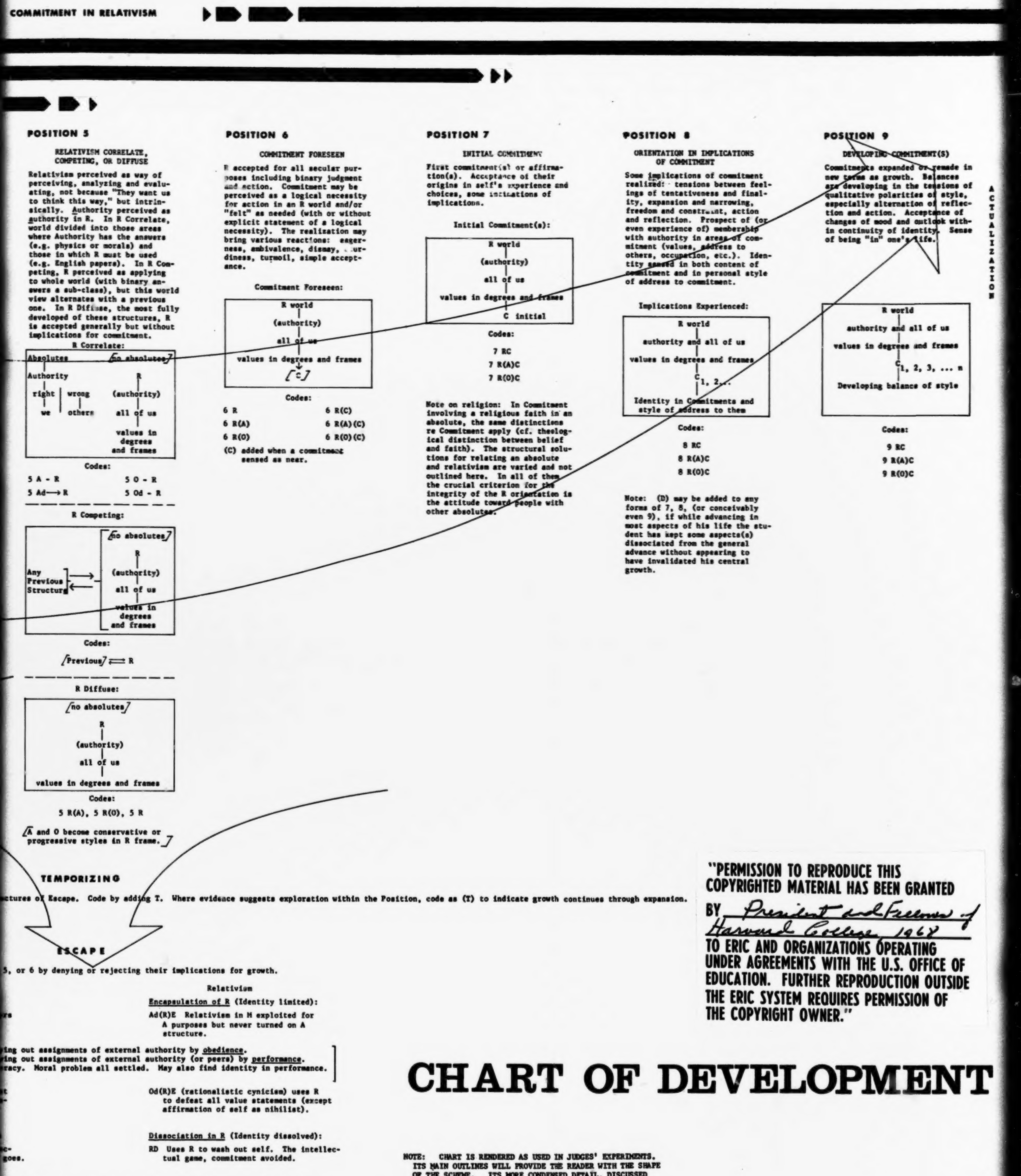
(Dependent) = Identity in carrying out assignments of external
(Outer directed) = Identity in carrying out assignments of external
(Inner directed) = Identity in autocracy. Moral problem all settled

Od(M)E (loose cynicism) uses M to defeat all value statements (except affirmation of self as nihilist).

Dissociation in M (Identity dissolved):

MD Uses M to wash out self, no intellectual exercise in process. Anything goes.

Note: Both E and D imply an opportunism. In D this is evident but not
opportunism" is denied. However, where a man says, "I am an opp
and the choice lies between forms of E, possibly Ad(M or R)E (ou
(cynic).



COMMITMENT IN RELATIVISM

## POSITION 5

RELATIVISM CORRELATE, COMPETING, OR DIFFUSE

Relativism perceived as way of perceiving, analyzing and evaluating, not because "They want us to think this way," but intrinsically. Authority perceived as authority in R. In R Correlate, world divided into those areas where Authority has the answers (e.g. physics or morals) and those in which R must be used (e.g. English papers). In R Competing, R perceived as applying to whole world (with binary answers a sub-class), but this world view alternates with a previous one. In R Diffuse, the most fully developed of these structures, R is accepted generally but without implications for commitment.

R Correlate:

Absolutes — Authority — right — we | wrong — others

[no absolutes] — R — (authority) — all of us — values in degrees and frames

Codes:

5 A - R     5 O - R

5 Ad ⟶ R     5 Od - R

R Competing:

Any Previous Structure ⇄ [no absolutes] — R — (authority) — all of us — values in degrees and frames

Codes:

[Previous] ⇄ R

R Diffuse:

[no absolutes]

R — (authority) — all of us — values in degrees and frames

Codes:

5 R(A), 5 R(O), 5 R

[A and O become conservative or progressive styles in R frame.]

## POSITION 6

COMMITMENT FORESEEN

R accepted for all secular purposes including binary judgment and action. Commitment may be perceived as a logical necessity for action in an R world and/or "felt" as needed (with or without explicit statement of a logical necessity). The realization may bring various reactions: eagerness, ambivalence, dismay, .urdiness, turmoil, simple acceptance.

Commitment Foreseen:

R world — (authority) — all of us — values in degrees and frames ↓ [C]

Codes:

6 R     6 R(C)

6 R(A)     6 R(A)(C)

6 R(O)     6 R(O)(C)

(C) added when a commitment sensed as near.

## POSITION 7

INITIAL COMMITMENT

First commitment(s) or affirmation(s). Acceptance of their origins in self's experience and choices, some intimations of implications.

Initial Commitment(s):

R world — (authority) — all of us — values in degrees and frames — C initial

Codes:

7 RC

7 R(A)C

7 R(O)C

Note on religion: In Commitment involving a religious faith in an absolute, the same distinctions re Commitment apply (cf. theological distinction between belief and faith). The structural solutions for relating an absolute and relativism are varied and not outlined here. In all of them the crucial criterion for the integrity of the R orientation is the attitude toward people with other absolutes.

## POSITION 8

ORIENTATION IN IMPLICATIONS OF COMMITMENT

Some implications of commitment realized: tensions between feelings of tentativeness and finality, expansion and narrowing, freedom and constraint, action and reflection. Prospect of (or even experience of) membership with authority in areas of commitment (values, address to others, occupation, etc.). Identity sensed in both content of commitment and in personal style of address to commitment.

Implications Experienced:

R world — authority and all of us — values in degrees and frames — C 1, 2... — Identity in Commitments and style of address to them

Codes:

8 RC

8 R(A)C

8 R(O)C

Note: (D) may be added to any forms of 7, 8, (or conceivably even 9), if while advancing in most aspects of his life the student has kept some aspects(s) dissociated from the general advance without appearing to have invalidated his central growth.

## POSITION 9

DEVELOPING COMMITMENT(S)

Commitments expanded or remade in new terms as growth. Balances are developing in the tensions of qualitative polarities of style, especially alternation of reflection and action. Acceptance of changes of mood and outlook within continuity of identity. Sense of being "in" one's life.

R world — authority and all of us — values in degrees and frames — C 1, 2, 3, ... n — Developing balance of style

Codes:

9 RC

9 R(A)C

9 R(O)C

ACTUALIZATION

## TEMPORIZING

ctures of Escape. Code by adding T. Where evidence suggests exploration within the Position, code as (T) to indicate growth continues through expansion.

## ESCAPE

5, or 6 by denying or rejecting their implications for growth.

Relativism

Encapsulation of R (Identity limited):

rs

Ad(R)E Relativism in M exploited for A purposes but never turned on A structure.

ing out assignments of external authority by obedience.
ing out assignments of external authority (or peers) by performance.
racy. Moral problem all settled. May also find identity in performance.

t

Od(R)E (rationalistic cynicism) uses R to defeat all value statements (except affirmation of self as nihilist).

Dissociation in R (Identity dissolved):

c-
goes.

RD Uses R to wash out self. The intellectual game, commitment avoided.

s. In D this is evident but not acknowledged, since even "commitment to
, where a man says, "I am an opportunist," he is describing an identity,
s of E, possibly Ad(M or R)E (outer directed) but more often Od(M or R)E

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# CHART OF DEVELOPMENT

NOTE: CHART IS RENDERED AS USED IN JUDGES' EXPERIMENTS. ITS MAIN OUTLINES WILL PROVIDE THE READER WITH THE SHAPE OF THE SCHEME. ITS MORE CONDENSED DETAIL, DISCUSSED ORALLY WITH THE JUDGES, CAN BE MOST READILY APPROACHED VIA THE TEXT OF CHAPTER V.

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TITLE

Patterns of Development in Thought and Values of Students in a Liberal Arts College, A Validation of a Scheme.
Final Report

PERSONAL AUTHOR(S)

Perry, William G., Jr. and others

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RETRIEVAL TERMS

IDENTIFIERS

ABSTRACT The investigators had abstracted a developmental scheme from students' reports of their experience given in interviews at the end of each of their four years in a liberal arts college. The scheme traces an evolution in the forms in which the students construe the world, with special reference to their assumptions about the nature and origin of knowledge and values. On the nine "positions" in the scheme's main line of development, the first three represent a simple dualistic right-wrong structure and its accommodations to the impact of diversity; the middle three positions trace the subordination of dualistic structures to a generalized relativistic structuring in which the students then face the issue of identity through personal commitment in a relative world; the last three positions represent stages in the evolution of commitment. Included in the scheme are three conditions of delay or of alienation expressive of deflections from the main line of development. In tests of the validity of the scheme, reported here, judges rated interviews against the scheme under various conditions: a) rating students' four annual reports in sets, b) rating single reports without knowledge of the student's year in college, c) rating selected brief excerpts, d) rating shortened versions of four-year sets in comparison with full transcripts. Estimated reliabilities of average ratings clustered around .910 for all reports in the random sample rated. The scheme is proffered as a contribution to the understanding of intellectual and moral development in late adolescence in a pluralistic society.